SAMSUNG

User Manual

C23A750X / C27A750X

The color and the appearance may differ depending on the product, and the specifications are subject to change without prior notice to improve the performance.

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- An administration fee may be charged if either
  - (a) an engineer is called out at your request and there is no defect in the product (i.e. where you have failed to read this user manual)
  - (b) you bring the unit to a repair centre and there is no defect in the product (i.e. where you have failed to read this user manual).
- The amount of such administration charge will be advised to you before any work or home visit is carried out.

Icons used in this manual

	The following images are for reference only. Real-life situations may differ from what is shown in the images.

Symbols for safety precautions

Warning	A serious or fatal injury may result if instructions are not followed.
Caution	Personal injury or damage to properties may result if instructions are not followed.

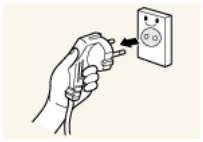
	Activities marked by this symbol are prohibited.
	Instructions marked by this symbol must be followed.

Cleaning

Cleaning

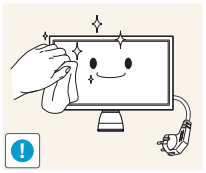
Exercise care when cleaning as the panel and exterior of advanced LCDs are easily scratched.

Take the following steps when cleaning.



1. Power off the monitor and computer.
2. Disconnect the power cord from the monitor.

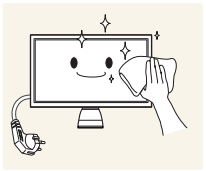
Hold the power cable by the plug and do not touch the cable with wet hands. Otherwise, an electric shock may result.



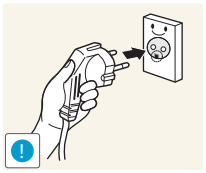
3. Wipe the monitor with a clean, soft and dry cloth.

- Do not apply a cleaning agent that contains alcohol, solvent, or surfactant to the monitor.

- Do not spray water or detergent directly on the product.



4. Wet a soft and dry cloth in water and wring thoroughly to clean the exterior of the monitor.

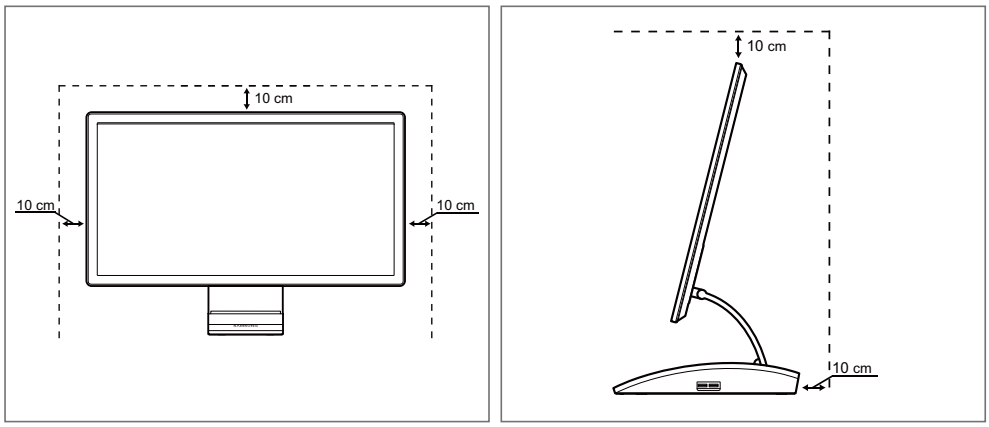


5. Connect the power cord to the product after cleaning the product.
6. Power on the monitor and computer.

Securing the Installation Space

- Keep the required distances between the product and other objects (e.g. walls) to ensure proper ventilation. Failing to do so may result in fire or a problem with the product due to an increase in the internal temperature.

The appearance may differ depending on the product.



Precautions for storage

High-glossy models can develop white stains on the surface if an ultrasonic wave humidifier is used nearby.

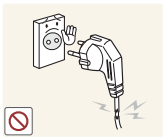
Be sure to contact Samsung Customer Service Center (page91) if the inside of the monitor needs cleaning. (service fee will be charged).

Safety Precautions

Electricity and Safety

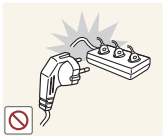
The following images are for reference only. Real-life situations may differ from what is shown in the images.

Warning



Do not use a damaged power cord or plug, or a loose power socket.

- An electric shock or fire may result.

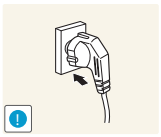


Do not plug many products into the same power socket.

- Otherwise, the socket may overheat and cause a fire.

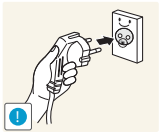
Do not touch the power plug with wet hands.

- Otherwise, an electric shock may result.



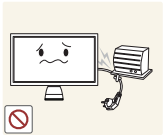
Insert the power plug all the way in so it is not loose.

- An unstable connection may cause a fire.



Connect the power plug to a grounded power socket (type 1 insulated devices only).

- An electric shock or injury may result.

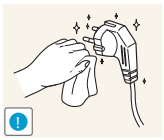


Do not bend or pull the power cord with force. Do not weigh the power cord down with a heavy object.

- A damaged power cord may cause an electric shock or fire.

Do not place the power cord or product near heat sources.

- An electric shock or fire may result.



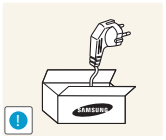
Remove foreign substances such as dust around the plug pins and power socket with a dry cloth.

- Otherwise, a fire may result.

Caution

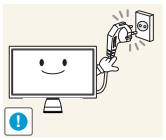
Do not unplug the power cord when the product is in use.

- The product may become damaged by an electric shock.



Do not use the power cord for products other than authorized products supplied by Samsung.

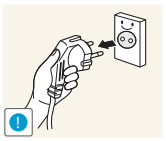
- An electric shock or fire may result.



Keep the power socket where the power cord is connected unobstructed.

- If any problem occurs in the product, unplug the power cable to completely cut the power to the product.

  Power to the product cannot be completely cut off with the power button.



Hold the plug when disconnecting the power cord from the power socket.

- An electric shock or fire may result.

Installation

Warning

DO NOT PLACE CANDLES, INSECT REPELLANTS OR CIGARETTES ON TOP OF THE PRODUCT. DO NOT INSTALL THE PRODUCT NEAR HEAT SOURCES.

- Otherwise, a fire may result.

Avoid installing the product in a narrow space with bad ventilation, such as a bookshelf or wall closet.

- Otherwise, a fire may result due to an increased internal temperature.

Keep the plastic packaging bag for the product in a place that cannot be reached by children.

- Children may suffocate.

Do not install the product on an unstable or vibrating surface (insecure shelf, sloped surface, etc.).

- The product may fall and break or cause a personal injury.
- Using the product in an area with excess vibration may damage the product or cause a fire.

Do not install the product in a vehicle or a place exposed to dust, moisture (water drips, etc.), oil, or smoke.

- An electric shock or fire may result.

Do not expose the product to direct sunlight, heat, or a hot object such as a stove.

- Otherwise, the product lifespan may be reduced, or a fire may result.

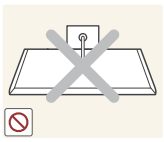
Do not install the product within the reach of young children.

- The product may fall and injure children.

Caution

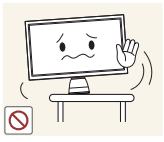
Take care not to drop the product when moving it.

- Otherwise, product failure or personal injury may result.



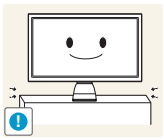
Do not set down the product on its front.

- The screen may become damaged.



When installing the product on a cabinet or shelf, make sure that the bottom edge of the front of the product is not protruding.

- The product may fall and break or cause a personal injury.
- Install the product only on cabinets or shelves of the right size.



Put down the product carefully.

- The product may fall and break or cause a personal injury.

Installing the product in an unusual place (a place exposed to a lot of fine particles, chemical substances or extreme temperatures, or an airport or train station where the product should operate continuously for an extended period of time) may seriously affect its performance.

- Be sure to consult Samsung Customer Service Center (page91) before installation if you want to install the product at such a place.

Operation

Warning

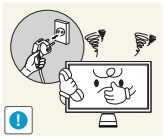
High voltage runs through the product. Do not attempt to disassemble, repair, or modify the product on your own.

- An electric shock or fire may result.

Contact Samsung Customer Service Center (page91) for repair.

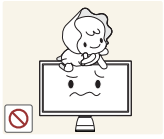
Before you move the product, be sure to turn off the power switch and remove all the cables connected to the product, including the power cord and the antenna cable.

- Otherwise, the power cord may be damaged and a fire or electric shock may result.



If the product generates a strange noise, a burning smell, or smoke, remove the power cord immediately and contact Samsung Customer Service Center (page91).

- An electric shock or fire may result.



Do not let children hang from the product or climb on top of it.

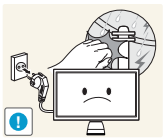
- The product may fall, and your child may become injured or seriously harmed.

If the product falls or the exterior is damaged, power off the product, remove the power cord, and contact Samsung Customer Service Center (page91).

- Otherwise, an electric shock or fire may result.

Do not put a heavy object, toy, or sweets on top of the product.

- The product or heavy objects may fall as children try to reach for the toy or sweets resulting in a serious injury.

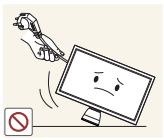


During a lightning or thunderstorm, remove the power cord and do not touch the antenna cable.

- An electric shock or fire may result.

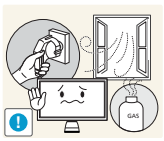
Do not drop objects on the product or apply impact.

- An electric shock or fire may result.



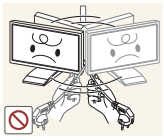
Do not move the product by pulling the power cord or any cable.

- Otherwise, the power cable may be damaged and product failure, an electric shock or fire may result.



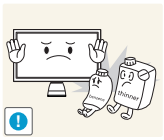
If a gas leakage is found, do not touch the product or power plug. Also, ventilate the area immediately.

- Sparks can cause an explosion or fire.
- During a lightning or thunderstorm, do not touch the power cord or antenna cable.



Do not lift or move the product by the power cord or any cable.

- Otherwise, the power cable may be damaged and product failure, an electric shock or fire may result.



Do not use or keep combustible spray or an inflammable substance near the product.

- An explosion or fire may result.

Ensure the vents are not blocked by tablecloths or curtains.

- Otherwise, a fire may result from an increased internal temperature.

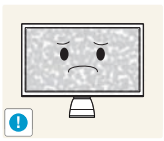
Do not insert a metallic object (a chopstick, coin, hair pin, etc.) or inflammable object (paper, match, etc.) into the vent or ports of the product.

- If water or any foreign substance enters the product, be sure to power off the product, remove the power cord, and contact Samsung Customer Service Center (page91).
- Product failure, an electric shock or fire may result.

Do not place objects containing liquid (vases, pots, bottles, etc) or metallic objects on top of the product.

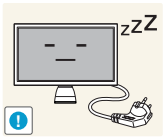
- If water or any foreign substance enters the product, be sure to power off the product, remove the power cord, and contact Samsung Customer Service Center (page91).
- Product failure, an electric shock or fire may result.

Caution



Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.

- If you are not going to use the product for an extended period of time, activate power-saving mode or a moving-picture screen saver.

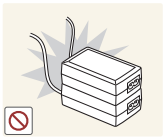


Disconnect the power cord from the power socket if you do not plan on using the product for an extended period of time (vacation, etc).

- Otherwise, a fire may result from accumulated dust, overheating, an electric shock, or electric leakage.

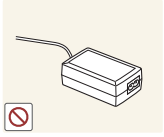
Use the product at the recommended resolution and frequency.

- Your eyesight may deteriorate.



Do not put DC power adapters together.

- Otherwise, a fire may result.



Remove the plastic bag from the DC power adapter before you use it.

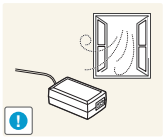
- Otherwise, a fire may result.

Do not let water enter the DC power device or get the device wet.

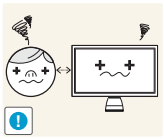
- An electric shock or fire may result.
- Avoid using the product outdoors where it can be exposed to rain or snow.
- Be careful not to get the DC power adapter wet when you wash the floor.

Do not put the DC power adapter near to any heating apparatus.

- Otherwise, a fire may result.



Keep the DC power adapter in a well-ventilated area.



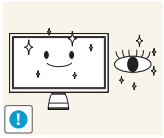
Looking at the screen too close for an extended period of time can deteriorate your eyesight.

Do not hold the monitor upside-down or move it by holding the stand.

- The product may fall and break or cause a personal injury.

Do not use humidifiers or stoves around the product.

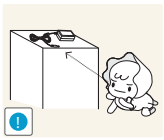
- An electric shock or fire may result.



Rest your eyes for more than 5 minutes for every 1 hour of product use.

- Eye fatigue will be relieved.

Do not touch the screen when the product has been turned on for an extended period of time as it will become hot.



Store the small accessories used with the product out of reach of children.

Exercise caution when adjusting the product angle or stand height.

- Otherwise, children's fingers or hands may become stuck and injured.
- Tilting the product excessively may cause it to fall and result in personal injury.

Do not place heavy objects on the product.

- Product failure or personal injure may result.

Correct posture to use the product

Use the product in the correct posture as follows:

- Straighten your back.
- Allow a distance of 45 to 50cm between your eye and the screen, and look slightly downward at the screen.

  Keep your eyes directly in front of the screen.
- Adjust the angle so light does not reflect on the screen.
- Keep your forearms perpendicular to your upper arms and level with the back of your hands.
- Keep your elbows at about a right angle.
- Adjust the height of the product so you can keep your knees bent at 90 degrees or more, your heels attached to the floor, and your arms lower than your heart.

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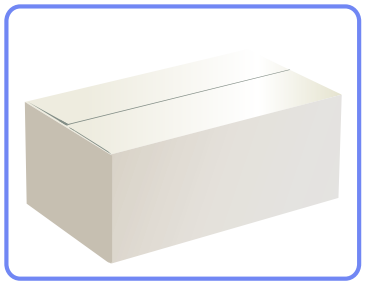
1 Preparations

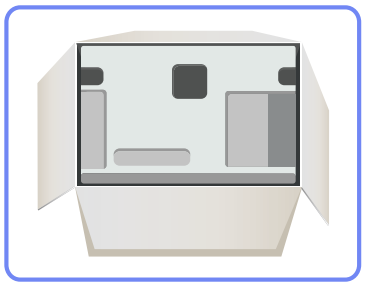
1.1 Checking the Contents

1.1.1 Removing the Packaging

1 Open the packaging box. Be careful not to damage the product when you open the packaging with a sharp instrument.

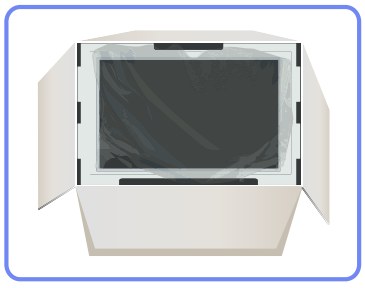


2 Remove the Styrofoam from the product.



3 Check the components and remove the Styrofoam and plastic bag.

- The appearance of actual components may differ from the image shown.
- This image is for reference only.

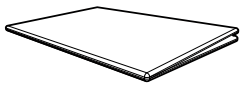


4 Store the box in a dry area so that it can be used when moving the product in the future.

1.1.2 Checking the Components

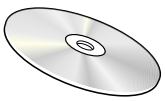
- Contact the dealer from whom you purchased the product if any item is missing.
- The appearance of the components and items sold separately may differ from the image shown.

Components

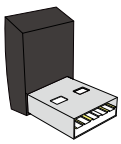


Quick Setup Guide

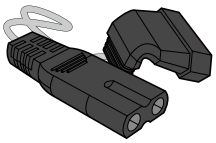
Warranty Card
(Not available In some locations)



User Manual

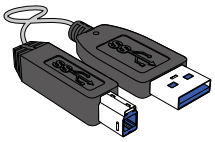


Wireless Connection Dongle

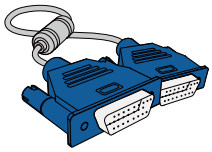


Power cable

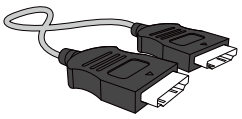
DC power adapter



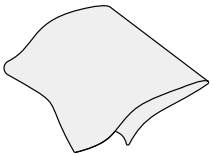
USB 3.0 cable



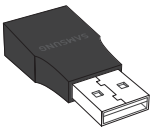
D-SUB cable



HDMI cable (optionally)



Cleaning cloth

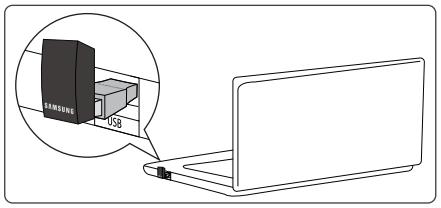


USB gender changer

- Components may differ in different locations.
- The cleaning cloth is only supplied with the black high-glossy model.

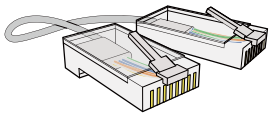
USB gender changer

When the wireless-connection dongle cannot connect to your notebook PC, connect it using the USB gender changer.

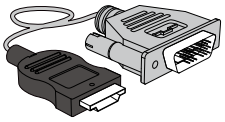


Items sold separately

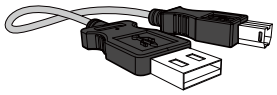
The following items can be purchased at your nearest retailer.



LAN cable



HDMI-DVI cable

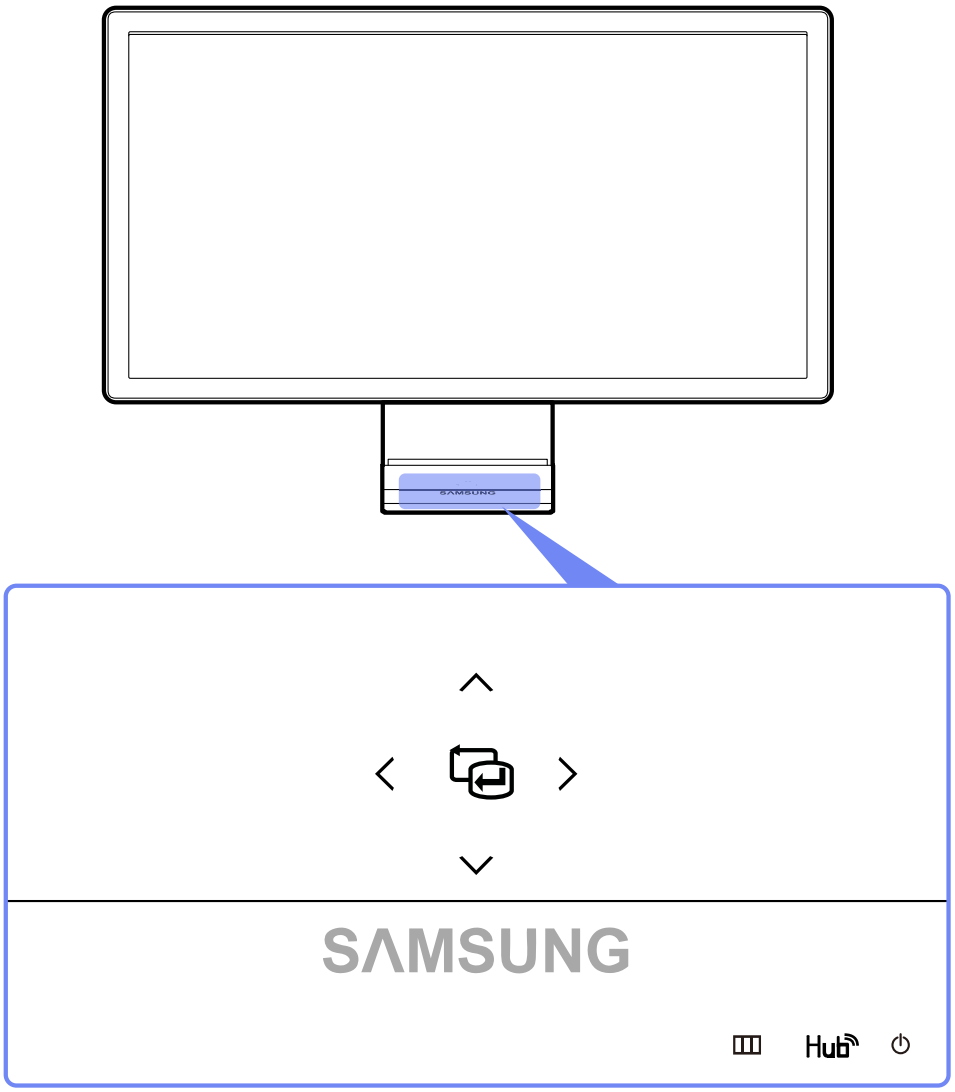


USB cable

1.2 Parts

1.2.1 Frontal Buttons

- The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.
- This is a touch-type button. Tap the button lightly with a finger.
- The printed board assembly (PBA) inside this product may heat the stand. A hot stand does not indicate a problem with the product.

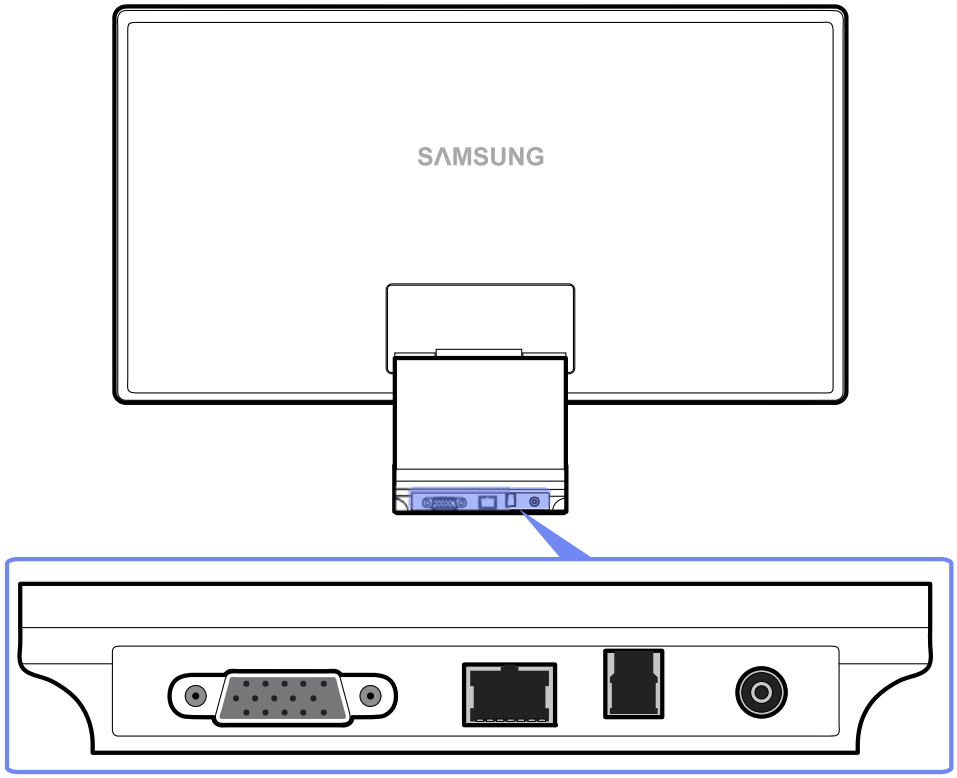


- If the MENU button is not visible, lightly tap the area around the [⏻] button. The MENU button will become visible.
- The onscreen display menu only appears when the MENU button light is lit.
- The lit MENU button light will automatically turn off after 10 seconds.

Icons	Description
	• Open or close the onscreen display (OSD) menu, or return to the last menu. • OSD control lock: Maintain the current settings, or lock the OSD control to prevent unintended changes to settings. To lock the OSD control, press the MENU button [ ] for five seconds. To unlock the locked OSD control, press the MENU button [ ] for more than five seconds. The Brightness and Contrast can be adjusted and Information can be viewed even when the OSD control is locked.
Hub	Open the HUB settings screen (see "HUB" in "7.1 HUB"). To hide the HUB screen, press the [Hub] or [ ] button.
	Turn the screen on or off. The power indicator will be lit when the product is operating normally. • Refer to "10.2 PowerSaver" for details about the power-saving function. • To reduce power consumption, it is best to remove the power cable when you will not be using the product for an extended period of time.
	Confirm a menu selection. Pressing the [ ] button when the OSD menu is not displayed will change the input source (Analog/HDMI/Wireless USB/USB). If you power on the product or change the input source by pressing the [ ] button, a message that shows the changed input source will appear at the top left corner of the screen. • This function is not available with any product that supports an Analog interface only. • If the [ ] button blinks abnormally, there may be a problem in the operation of the fan inside the product. If the problem persists for more than 10 minutes, consult your nearest customer service center.
^/v	Move to the upper or lower menu or adjust the value for an option on the OSD menu.
</>	Move to the left or right menu or adjust the value for an option on the OSD menu.

1.2.2 Reverse Side

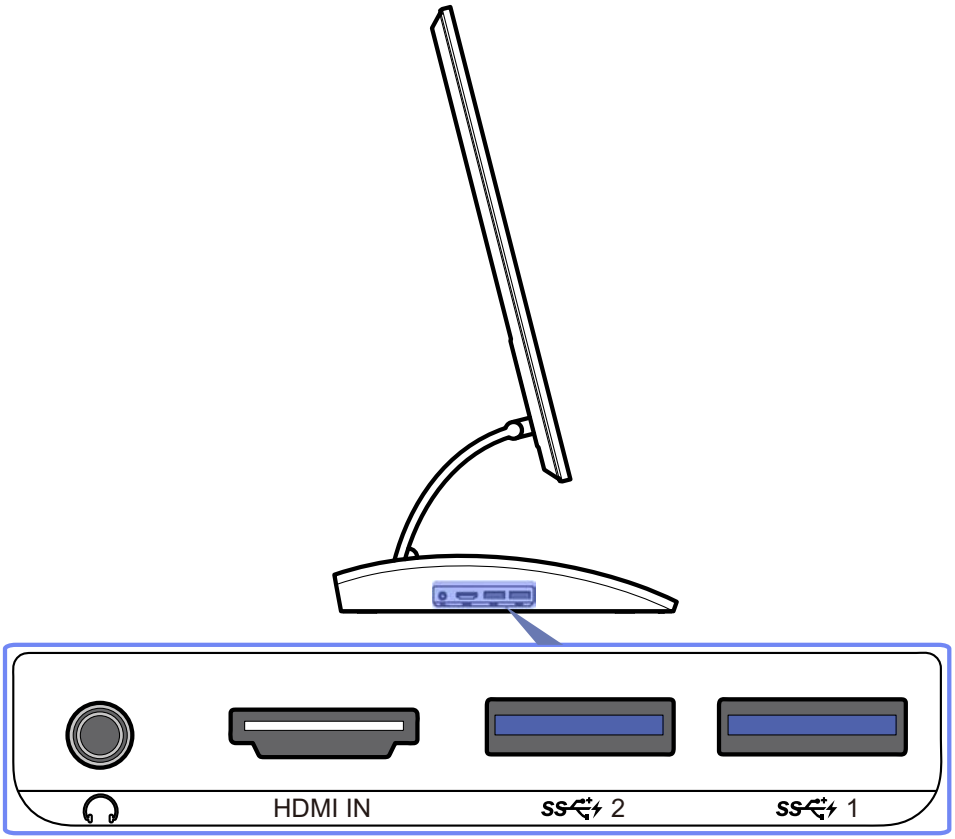
The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



Port	Description
	Connects to a PC using the D-SUB cable.
	Connects to a network using the LAN cable.
	Connects to a PC via a USB cable. This port can only connect to a PC.
	Connects to the DC power adapter.

1.2.3 Left Side View

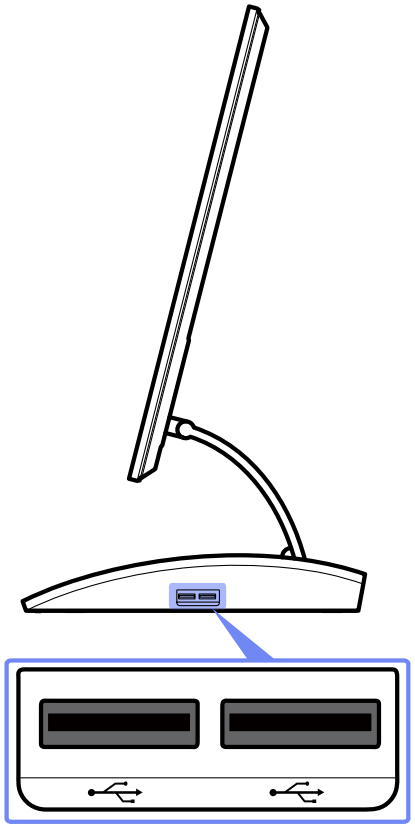
The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



Port	Description
🎧	Connects to an audio output device such as headphones.
HDMI IN	Connects to a source device using an HDMI cable.
SS 2 / SS 1	Connects to a source device via a USB cable. Compatible with a USB cable version 3.0 or lower. • The USB 3.0 port is blue in color. • If 1 Port is selected for USB Super Charging, only the [SS 1] port is enabled.

1.2.4 Right Side View

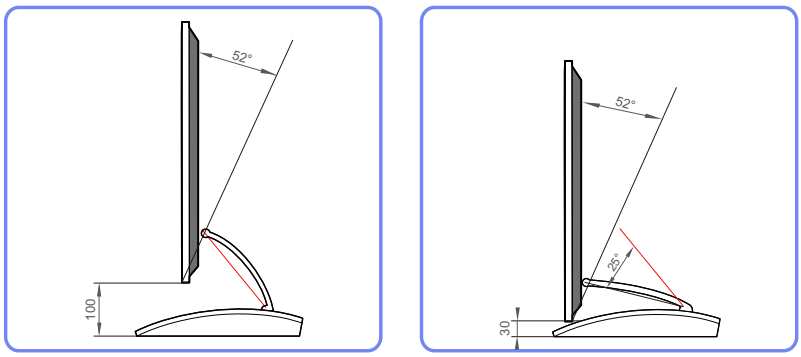
The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



Port	Description
	Connects to a source device via a USB cable. Compatible with a USB cable version 2.0 or lower. The USB 2.0 port is black in color.

1.2.5 Adjusting the Product Tilt and Height

The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



- The monitor tilt and height can be adjusted.
- Hold the top center of the product and adjust the tilt carefully.

2 Using "HUB Monitor"

You can use "HUB Monitor" by connecting the product to a PC through the Wireless USB function or a USB cable. "HUB Monitor" system allows the product to function as a HUB so that you can connect a device directly to the product to control the device from the product without having to connect the device to a PC.

2.1 About "HUB Monitor"

"HUB Monitor" is a HUB system developed independently by Samsung and allows you to conveniently control a notebook PC that has a small screen and a limited number of input/output ports available.

Notebook or netbook computers offer portability but may prove inconvenient when used at the office or at home due to the limited number of functions available. Connecting a notebook PC to this product, which has the "HUB Monitor" function, allows you to view the small notebook PC screen on a larger screen. With the HUB function, you can control multiple devices at the same time from the notebook PC, even if the notebook PC has a limited number of input/output ports.

In particular, the high-tech Wireless USB feature allows you to connect a notebook PC to the product wirelessly and, from the product, enjoy various multimedia contents stored on the notebook PC.

You can also use triple monitors by configuring the display settings.

2.2 Software Installation for Using "HUB Monitor"

Install on your PC the software provided with the product.

To maximize the performance of your HUB Monitor, visit www.samsung.com and upgrade the driver periodically.

2.2.1 Installing "SAMSUNG HUB Monitor Setup"

This software is needed to use the HUB Monitor function. Software installation may be affected by the graphics card, motherboard, or network conditions of the PC.

1. Insert the installation CD into the CD-ROM drive.
2. Click the "SAMSUNG HUB Monitor Setup" installation program.

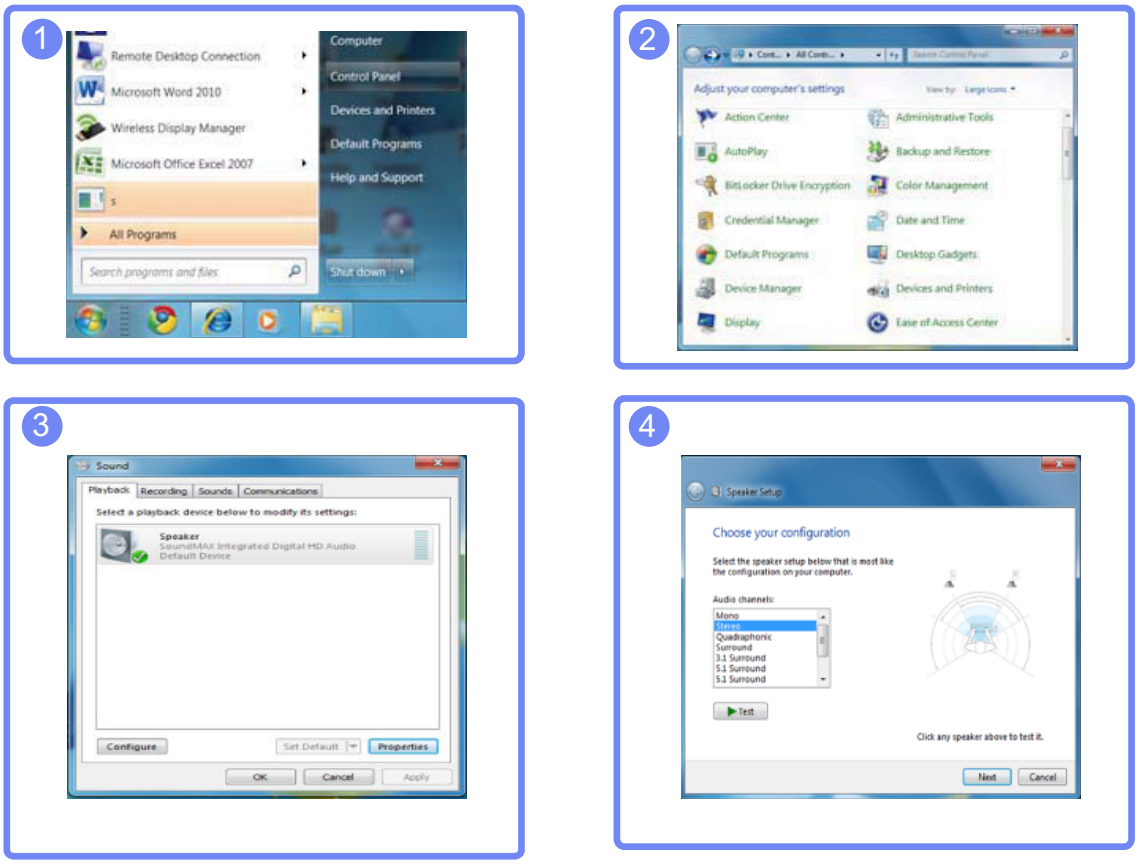
   If a software installation window does not appear in the main screen, install using the "SAMSUNG HUB Monitor Setup > CA750X_HUB_Monitor.exe" execution file on the CD-ROM.

3. Follow the instructions given on the screen to proceed with installation.

   Select the country where you will use the product when installing the driver initially. Using the product in a country other than the selected country would be contrary to the law.

4 After installing the integrated PC driver "Samsung HUB Monitor Setup," customize the audio output port settings as required.

(Control Panel->Audio->Speaker->Speaker Setup)



- "SAMSUNG HUB Monitor Setup" software consists of "Samsung Wireless HUB Monitor" and "Samsung Wireless Monitor". To delete the software, go to Start → Settings → Control Panel and double-click Add or Remove Programs on the PC. Select "Samsung Wireless HUB Monitor" and "Samsung Wireless Monitor" from the list and click Change/Remove.

2.3 Connecting the Product to a PC to Use "HUB Monitor"

Connect the product to a PC via Wireless USB and the USB cable.

Connecting the product and PC via Wireless USB and the USB cable will allow you to hear audio when you plug headphones or speakers into [🎧] on the product.

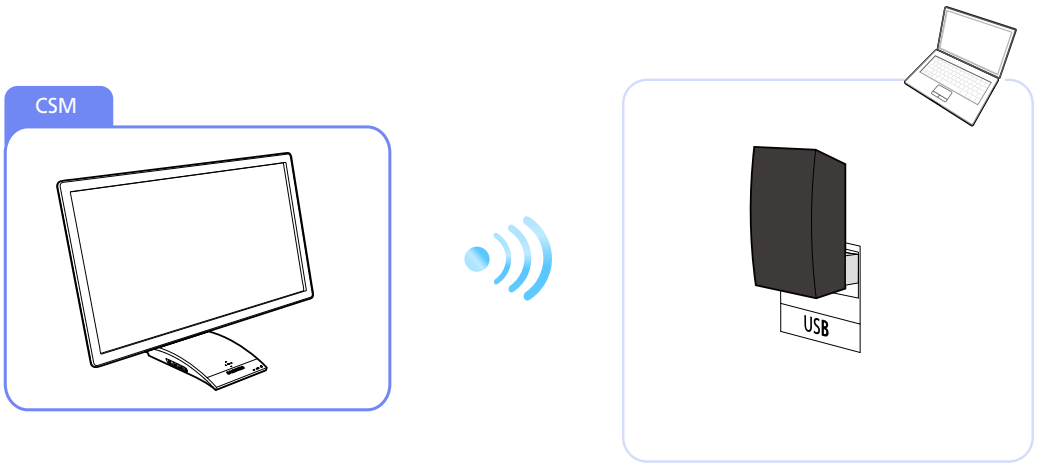
If a PC is connected, the product will automatically switch to the mode of the detected input source. If several source devices are connected to the product, the input source will automatically change

according to this priority, from left to right: Analog mode > HDMI mode > Wireless USB mode > USB mode.

If the product connects to a PC for the first time, the optimum resolution (1920 x 1080) will be selected automatically and a message will appear confirming that you want to set the display to extended mode. The same resolution will be applied from the next time the product connects to the PC.

When multiple display output ports on the PC are connected to the HUB Monitor, different signals may output depending on the system specifications of the PC.

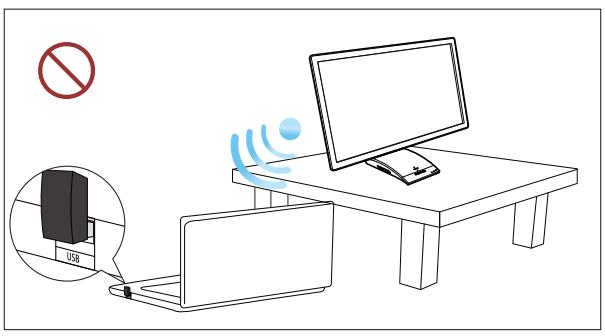
2.3.1 Connecting to a PC via Wireless USB



To use the Wireless USB function, the wireless-connection dongle provided (as a component) should be connected to the USB port on the PC. The wireless-connection dongle allows a wireless connection between the product and a PC. The dongle connected to a PC should point at the product to maximize signal reception.

Wireless communication can be affected by the surrounding environmental conditions. Do not place an object, or obstacle, between the monitor and PC. The object can affect the sensitivity of the signal transmission/reception.

- Ensure you install the HUB Monitor at the same height as the transmitter (dongle) on the PC.



The table can be an obstacle and degrade wireless performance if the HUB Monitor is not placed at the same height as the transmitter (dongle) on the PC, even if the monitor and transmitter face each other.

- The sensitivity of the signal reception/transmission can affect the performance of video or game playback (choppy or slowed-down video).
- To maximize the transmission/reception, attach the transmitter (dongle) to the closest USB port (on either side of the notebook PC) to the HUB Monitor.
- To maximize the wireless communication performance, ensure your PC is within a range of 27.6 inch from the HUB Monitor.Ensure the PC and monitor are placed on the same table or at the same height. Otherwise, the signal transmission/reception can be degraded.
- Using the HUB Monitor on a steel table will degrade wireless performance.
- Do not place any object that can obstruct the signal transmission in front of the product. Such objects may decrease signal reception.
- This product cannot connect to multiple PCs wirelessly at the same time and vice versa.

Connecting to a PC via Wireless USB

1. Install "Samsung HUB Monitor Setup" on the PC, and attach the dongle to the USB port on the PC.
2. Press [⧉] to change the input source for the product to Wireless.
3. Double-click the "Wireless Connection Manager" icon created on the desktop. The following screen will appear.

Five levels of signal intensity are available.

All the five signal intensity indicator bars, including the green bar, will be lit when the strongest signal is received. The weakest signal intensity will turn on the red bar only.

The following Welcome to the Found New Hardware Wizard message may appear when the product attempts to connect to a PC via Wireless USB. If the message appears, proceed with installation following the instructions displayed.

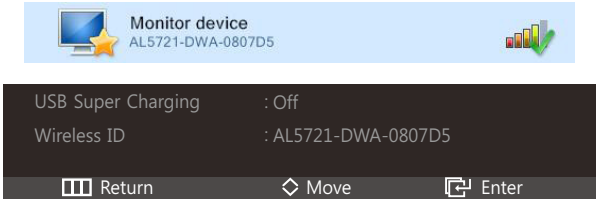
4 Double-click the hub monitor to open the following screen.

If a connection is established between the product and PC, [✓] will appear over the signal intensity bars as shown below and the product will display the PC screen. If [✓] does not appear, the connection is not established between the product and PC.

5 Right-click in the Connected Monitor to open the menu page as below.

- Disconnect: Disconnect Wireless between the product and PC.
- Set as default: Give first priority to the product to connect to the PC once a Wireless signal is detected. A star will appear beside the monitor icon if the product is set as the default monitor. Ensure the wireless ID below "Monitor device" matches the wireless ID on the HUB menu screen.

Wireless ID is a unique ID assigned to a monitor. The “SAMSUNG HUB Monitor Setup” program reads the ID and identifies each of nearby monitors. The ID is shown in the “SAMSUNG HUB Monitor Setup” program and in the lower part of the HUB menu.
A different ID (number) is displayed for each product. (The ID is displayed as shown below.)



- Rename: Customize the name of the connected monitor.

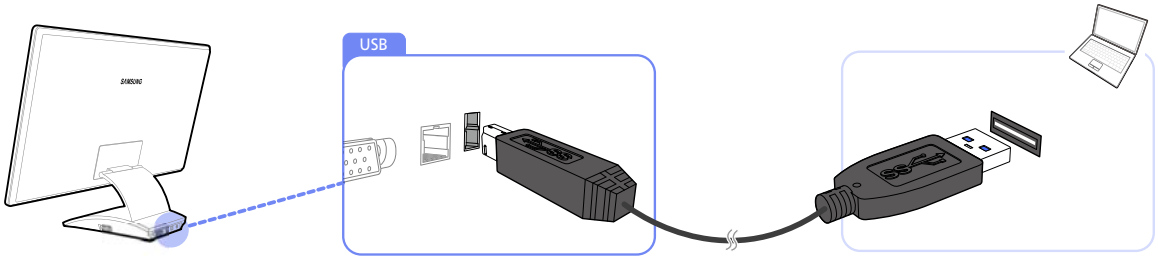
The program will automatically activate to allow you to use the Wireless USB connection even when the "Wireless Display" window is closed.

Automatic/manual Wireless USB connection

Set Auto Wireless Detection to On under HUB in the on-screen display menu. A Wireless USB connection will automatically be established if the product is within 1.5 m from the PC. The first priority will be given to a Wireless USB connection even when the product is in power-saving mode or is connected to another input source (Analog/USB/HDMI). The Connecting to PC… message will be displayed while connection is attempted.

To establish a Wireless USB connection when Auto Wireless Detection is set to Off, press [⏎] to switch to Wireless USB mode. The Connecting to PC… message will be displayed while connection is attempted. Deactivating the Wireless USB mode will automatically restore the previous mode.

2.3.2 Connecting to a PC via the USB Cable



Connect the USB cable to [ ] on the back of the product and USB [ ] on the PC.

The product is compatible with a USB 2.0 cable. However, it is best to use a USB 3.0 cable for the product to function fully.

Connecting to a PC using the USB cable

1. Connect a desktop PC to the product using the USB cable.
2. Press [⏎] to change the input source for the product to USB mode.
3. The product will display the PC screen if the connection is established.

Automatic/manual USB cable connection

The input source will automatically change to USB mode if a USB cable connects to the product and a PC. If the input source does not switch to USB mode automatically, press [⏎] to switch to USB mode.

Top priority will be given to Wireless USB mode if the product is connected to Wireless USB and a USB cable at the same time.

2.4 Utilizing "HUB Monitor"

HUB Monitor is only available when the product is connected to a PC via Wireless USB or a USB cable.

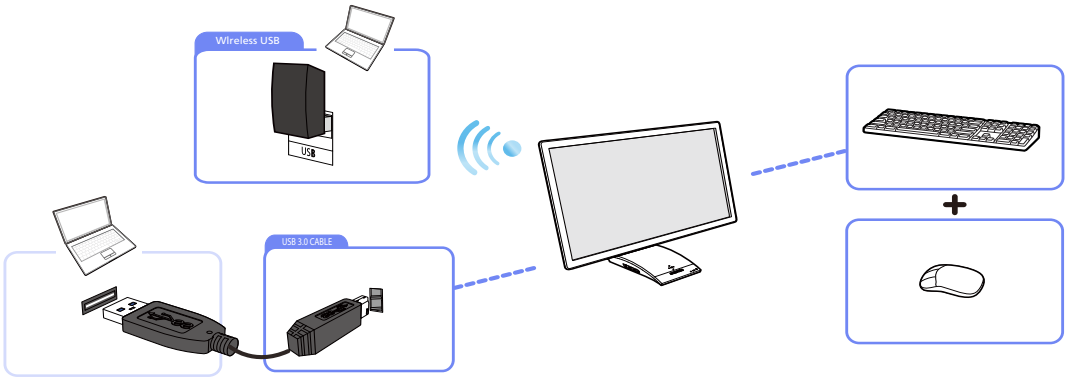
2.4.1 Using the Product as a USB HUB

Using the product as a hub, connect and use various source devices with the product at the same time.

A PC cannot connect to multiple source devices at the same time as it has a limited number of input/output ports available. The HUB feature on the product will improve your work efficiency by allowing you to connect multiple source devices to the USB ports on the product at the same time without connecting them to a PC.

- The product is compatible with a USB 2.0 cable. However, your PC should support USB 3.0 for the HUB function to work fully.
- If you experience a communication problem with a PC that provides the USB 3.0 function, download and install the latest driver version from the PC manufacturer.

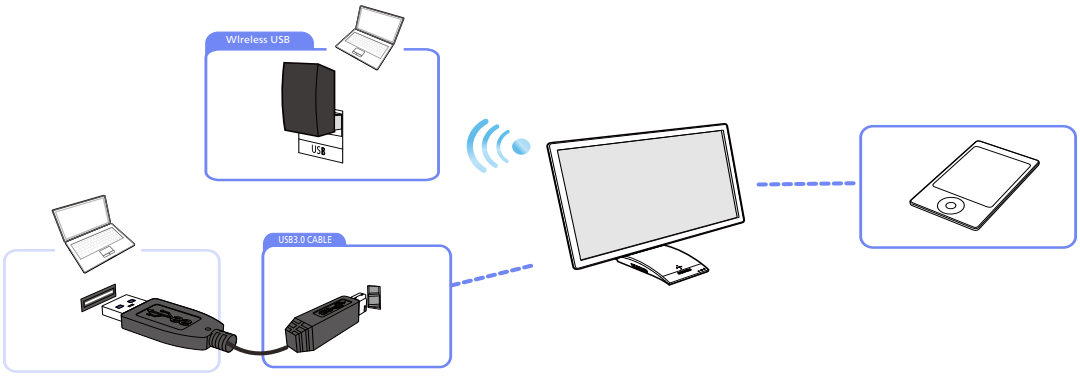
Using the Product as a USB HUB



If multiple source devices are connected to the PC, the many cables around the PC may look messy. Connecting the devices directly to the product will resolve such inconvenience.

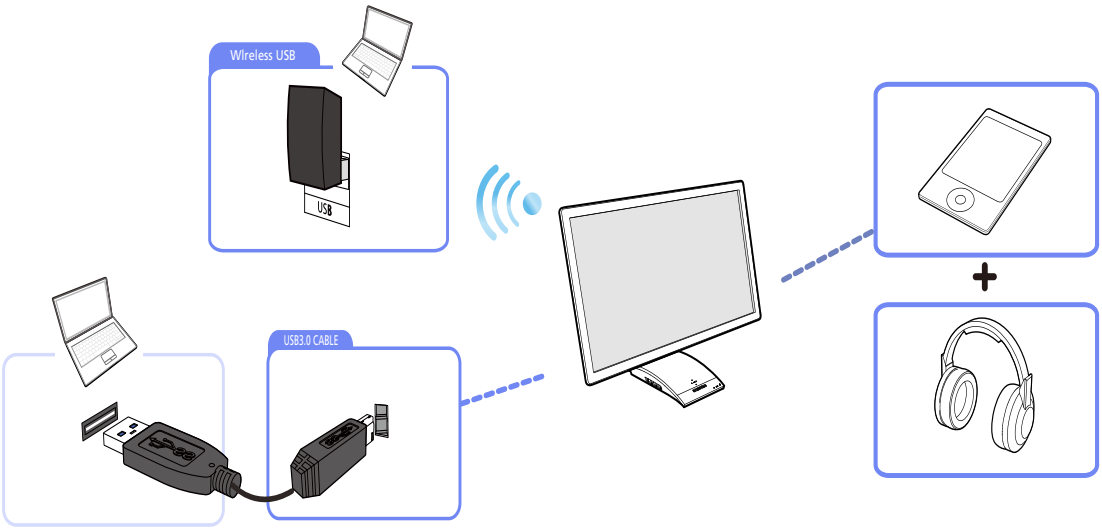
- To detect and start a source device faster, connect the device to the blue USB 3.0 port on the left side of the product.

- An external mass-storage HDD requires external power supply. Be sure to connect it to a power source.



Connect a mobile IT device such as an MP3 player or smart phone to the product when connected to a PC. This allows you to use the device from the PC or charge the battery on the device.

- To charge the battery of a device, be sure to connect the device to the blue USB 3.0 port on the left side of the product.
- Battery charging is available in power-saving mode, but not available when the product is powered off.
- Note that the battery will not be charged if the power cable is disconnected from the power socket.



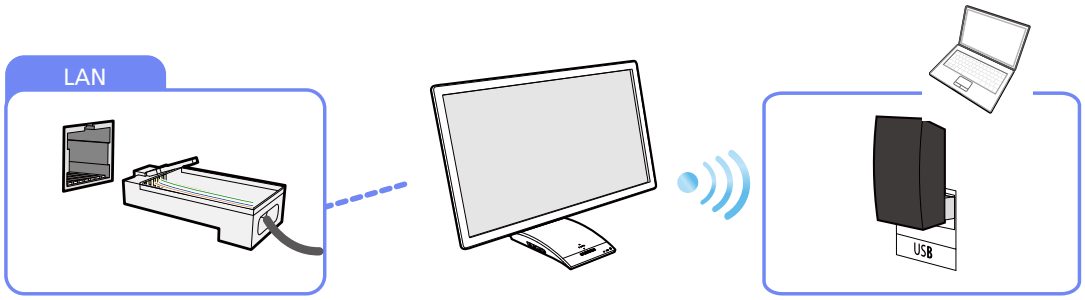
Connect multiple source devices to the product and use the device you want by changing the input source.

2.4.2 Connecting to a LAN

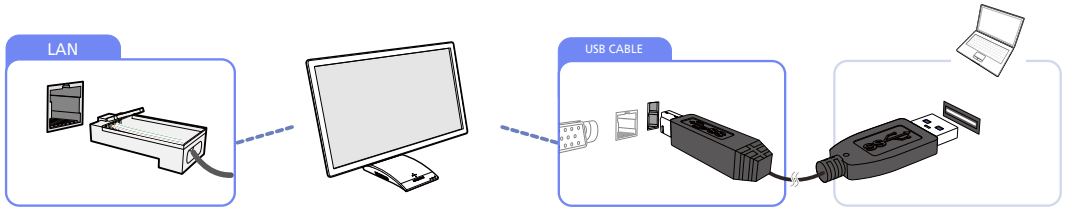
"HUB Monitor" allows you to use the Internet from a PC when you connect a LAN cable to the product (if the product is connected to the PC), without having to connect the LAN cable directly to the PC.

This is achieved by an internal chip that transmits data received via the LAN cable to the PC as a converted USB signal.

Connecting to a LAN via Wireless USB



Connecting to a LAN via USB cable



This product cannot connect to multiple source PCs at the same time and vice versa.

2.5 Configuring the HUB Monitor IP

1. After installing the integrated driver for HUB Monitors, go to Control Panel → Network and Internet → Network and Sharing Center → Change adapter settings.
2. You can see that the following two devices are displayed.
   a. The user PC's network device
   b. The HUB Monitor's network device (USB to Ethernet adapter)

   The two devices above refer to your PC's LAN network device and your HUB Monitor's network device.

To use the Internet using the HUB Monitor's LAN network, configure the network settings as follows according to the type of IP you will be using.

2.5.1 Dynamic IP

The dynamic IP address mode automatically configures the network settings on the PC using data sent by a server, which allots an IP address. This is possible, owing to the "DHCP (Dynamic Host Configuration Protocol)" service. The service consists of three steps: an IP address allotment request is sent to the DHCP server when the PC boots up, the DHCP server that received the request transmits

network information such as the IP address to the PC, and the transmitted network information is automatically registered to the network settings on the PC. The DHCP service is convenient and useful especially in an environment where multiple PCs are used. Theoretically, the IP address changes each time the PC boots up (or an IP allotment request is sent); in many cases, however, the existing IP address is re-allotted. An Internet router performs two roles: creating a private IP address (NAT service) and automatically allotting the IP address to each PC (DHCP service) at the same time.

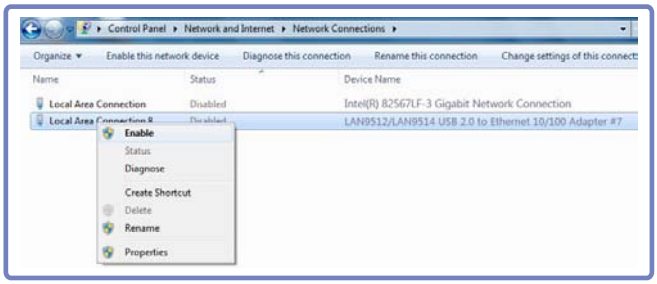
When using your HUB Monitor's or notebook PC's LAN network, ensure you insert a LAN cable into only one device. Otherwise, a system crash may occur.

Dynamic IP User

1 To use a dynamic IP address, connect a LAN to your HUB Monitor.

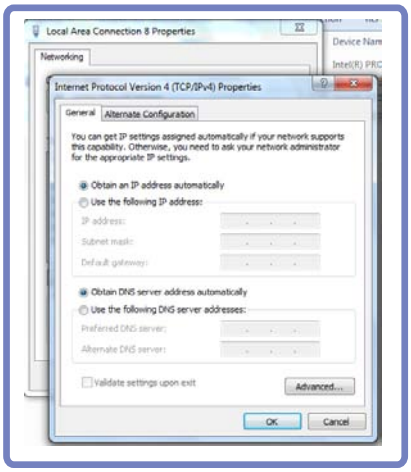
2 Next, go to the network settings menu and activate the HUB Monitor's network device (select "Use").

Go to Control Panel → Network and Internet → Network and Sharing Center → Change adapter settings. Next, right-click on the HUB Monitor's network device (marked "LAN9512/ LAN9514 USB 2.0 to Ethernet 10/100 Adapter #7") and select Use.



3 Using the network properties menu, check that the IP address mode for the HUB Monitor's network device is set to Auto.

Go to Control Panel → Network and Internet → Network and Sharing Center → Change adapter settings. Next, right-click on the HUB Monitor's network device (marked "LAN9512/ LAN9514 USB 2.0 to Ethernet 10/100 Adapter #7").


Local Area Connection 8 Properties
Networking
Internet Protocol Version 4 (TCP/IPv4) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel

Select Properties → Internet Protocol Version 4 (TCP/IPv4) → Properties.

2.5.2 Static IP

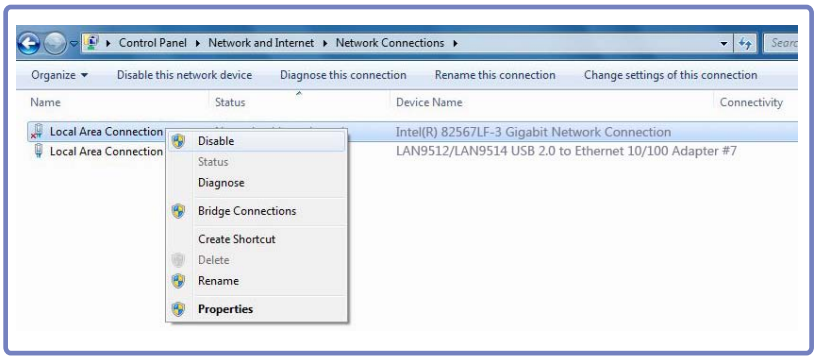
To configure the IP address (private or official) on your PC, someone (mostly a server system) must distribute and allot an IP address to the PC. An official IP address is allotted by your Internet service provider, and a private IP address is allotted by your Internet router. You can select whether to configure the IP address on the PC automatically or manually. The static IP address mode is used to manually enter an IP address. The static IP address mode is suitable if the IP address for the PC should not be changed (such as for a file sharing server) and generally is not used, except under such special circumstances.

When using your HUB Monitor's or notebook PC's LAN network, ensure you insert a LAN cable into only one device. Otherwise, a system crash may occur.

Static IP User

1 Set the LAN network for the notebook PC to Disable.

2 Go to Control Panel → Network and Internet → Network and Sharing Center → Change adapter settings. Next, right-click on the notebook PC's network device and select Disable.



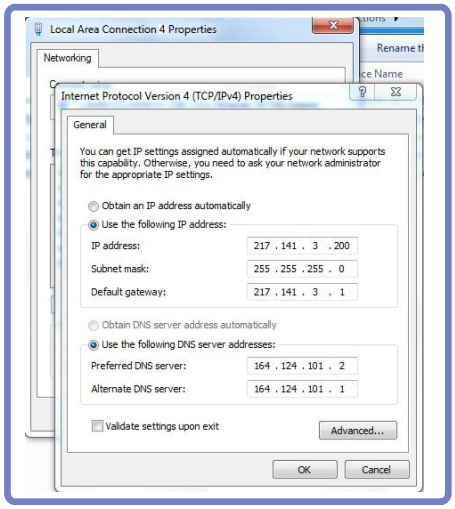
3 Right-click on the HUB Monitor's network device (marked "LAN9512/LAN9514 USB 2.0 to Ethernet 10/100 Adapter #7"), and select Use.

Be sure to perform this process before configuring the IP.

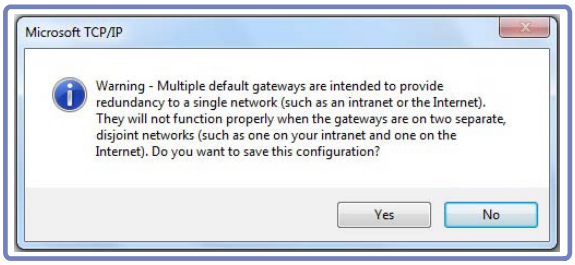
4 Configure the static IP.
Assign the static IP that is allotted to the HUB Monitor's network device.

Go to Control Panel → Network and Internet → Network and Sharing Center → Change adapter settings. Next, right-click on the HUB Monitor's network device (marked "LAN9512/

LAN9514 USB 2.0 to Ethernet 10/100 Adapter #7"), select Properties → Internet Protocol Version 4 (TCP/IPv4) → Properties, and configure the static IP and DNS settings.


Local Area Connection 4 Properties
Networking
Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 217 . 141 . 3 . 200
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 217 . 141 . 3 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 164 . 124 . 101 . 2
Alternate DNS server: 164 . 124 . 101 . 1
Validate settings upon exit
Advanced...
OK
Cancel

5 After configuring the IP, click OK. The following message will appear.

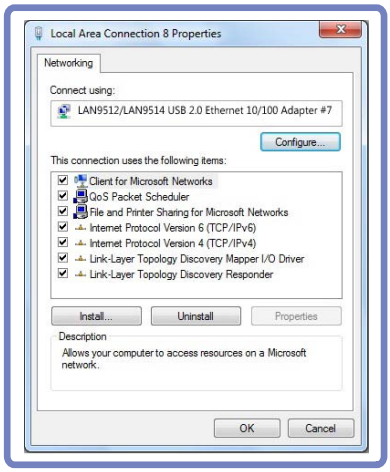

Microsoft TCP/IP
Warning - Multiple default gateways are intended to provide redundancy to a single network (such as an intranet or the Internet). They will not function properly when the gateways are on two separate, disjoint networks (such as one on your intranet and one on the Internet). Do you want to save this configuration?
Yes
No

A static IP must be allotted to only one network device. The following message will appear if the same static IP is allotted to the network devices of both the notebook PC and HUB Monitor. (Ensure the network device that is not in use is set to Do not use.)

Select No in the message window.

To use the notebook PC's LAN network, set the HUB Monitor's network to Do not use and the notebook PC's network device to Use. Next, configure the IP settings.

6 Click Close.

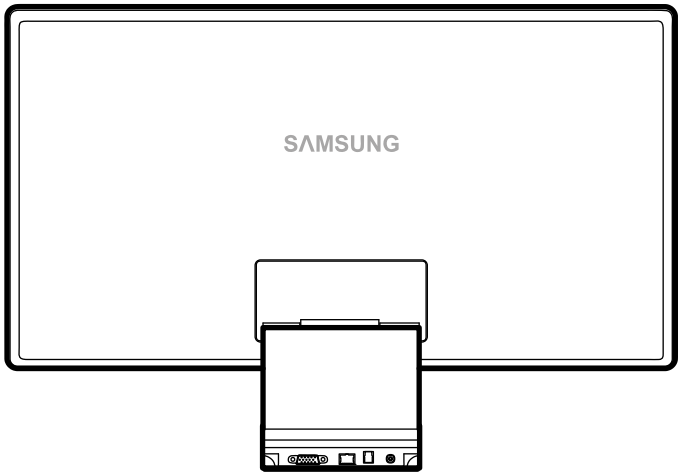


2.6 Notice before your use of Wireless USB or USB Mode

1. Most of the games require high resolution and fast response time. When you play a game, we recommend to use Analog or HDMI Mode rather than Wireless USB or USB Mode. Also, for playing Game and Movie clips on Windows XP or VISTA is not supported.
2. When Wireless USB/USB Mode is used for first time or PC power saving mode is disconnected, it may take some time to acknowledge for Wireless USB/USB Mode.
3. Either it is Wireless USB or USB Mode(USB2.0 supported by PC), we recommend to connect to USB2.0 port for USB HUB function.(black colored connector).
4. When you use Wireless USB mode and PC goes down to Standby mode, you cannot use USB Hub function since Wireless USB is disconnected to PC.

3 Connecting and Using a Source Device

3.1 Before Connecting



3.1.1 Pre-connection Checkpoints

- Before connecting a source device, read the user manual provided with it.
  The number and locations of ports on source devices may differ from device to device.
- Do not connect the power cable until all connections are completed.
  Connecting the power cable during connection may damage the product.
- Check the types of ports at the back of the product you want to connect.

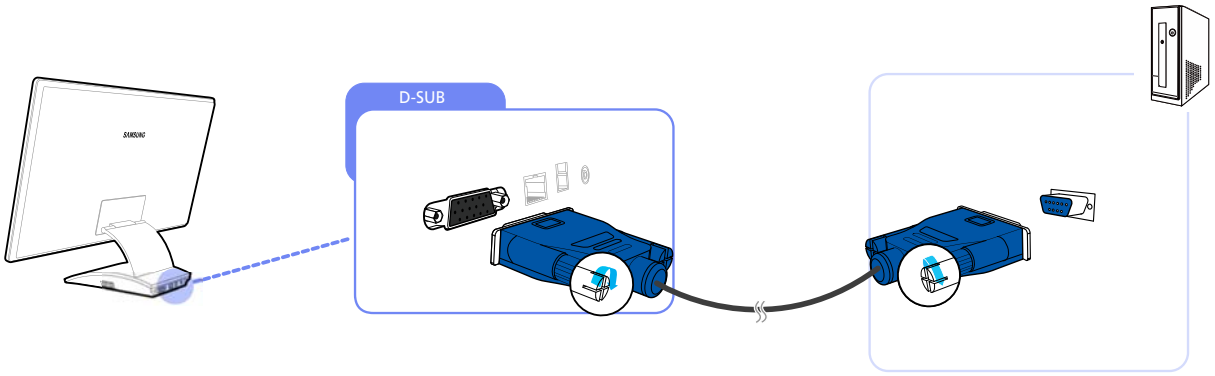
3.2 Connecting and Using a PC

3.2.1 Connecting to a PC

- Select a connection method suitable for your PC.

Connecting parts may differ in different products.

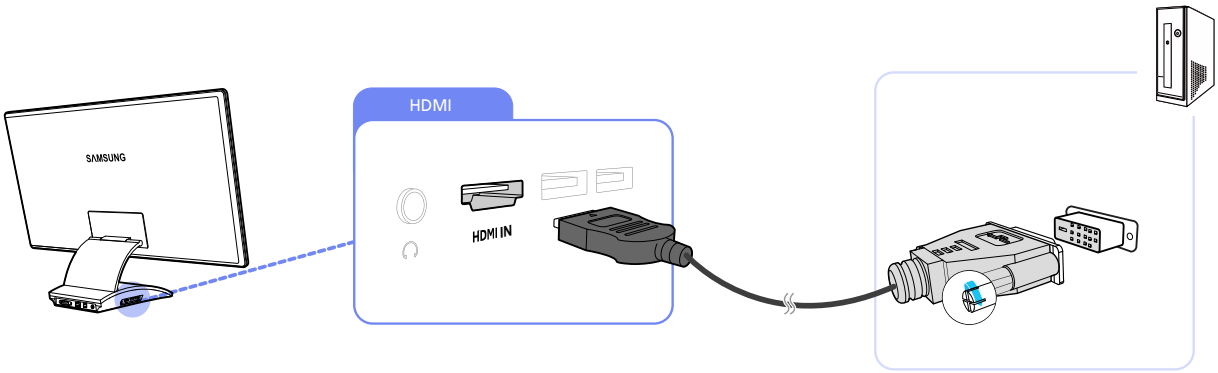
Connection using the D-SUB cable (Analogue type)



1. Connect the D-SUB cable to the D-SUB port on the back of the product and the RGB port on the PC.
2. Connect the DC power adapter to the product and a power socket, and turn on the power switch on the PC.

Audio is not available if the PC and product are connected via the D-SUB port.

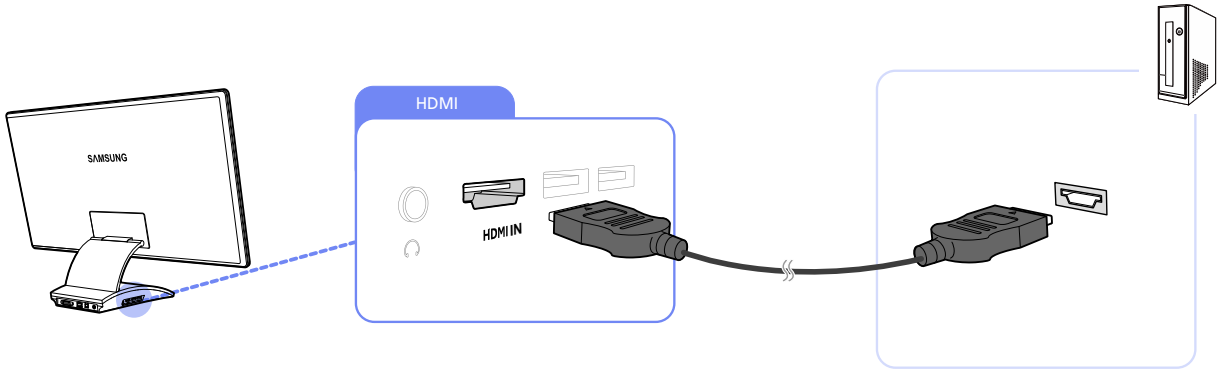
Connection Using an HDMI-DVI Cable



1. Connect an HDMI-DVI cable to the HDMI port on the side of the product and the DVI port on the PC.
2. Connect the DC power adapter to the product and a power socket, and turn on the power switch on the PC.

Audio is not available if the PC and product are connected via the HDMI-DVI port.

Connection Using an HDMI Cable (Digital Type)



1 Connect an HDMI cable to the HDMI port on the side of the product and the HDMI port on the PC.

2 Connect the DC power adapter to the product and a power socket, and turn on the power switch on the PC.

Be sure to connect an audio output device such as headphones or speakers to [🎧] on the product to hear audio.

3.2.2 Driver Installation

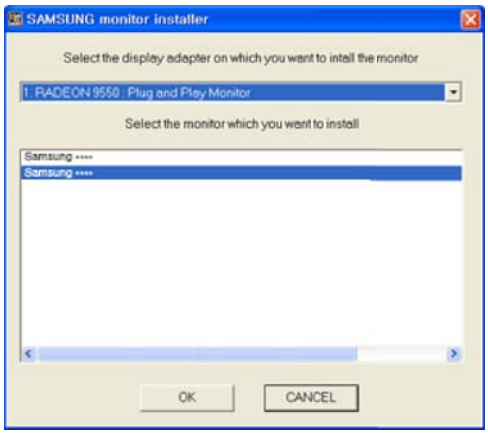
- You can set the optimum resolution and frequency for this product by installing the corresponding drivers for this product.
- An installation driver is contained on the CD supplied with the product.
- If the file provided is faulty, visit the Samsung homepage (http://www.samsung.com) and download the file.

1 Insert the user manual CD provided with the product into the CD-ROM drive.

2 Click "Windows Driver".

3 Follow the instructions given on the screen to proceed with installation.

4 Select your product model from the list of models.


SAMSUNG monitor installer
Select the display adapter on which you want to intall the monitor
1. RADEON 9550 : Plug and Play Monitor
Select the monitor which you want to install
Samsung ****
Samsung ****
OK
CANCEL

5 Go to Display Properties and check that the resolution and refresh rate are appropriate.

Refer to your Windows OS manual for further details.

PC System Requirements for Using the Product

Your HUB Monitor is designed for notebook PC users; consider the following PC system requirements.

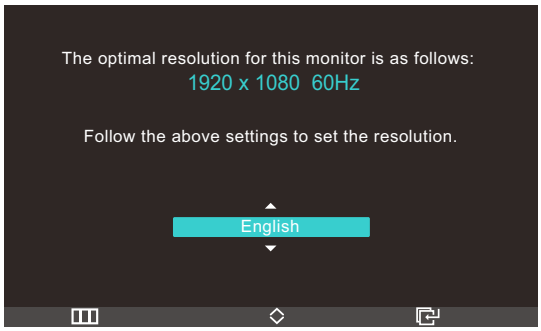
Items	Specifications
CPU Core	Core2Duo or higher
CPU Speed	2.2 GHz or higher
OS	WINDOWS 7 or XP (Windows Vista is not supported)
Graphics driver (WINDOWS 7, XP)	Intel, AMD(ATI), Nvidia
RAM	2GB

- The operating system on your PC can affect the PC's performance for video or game playback.
- It is recommended that you use Windows 7 for the HUB Monitor.

3.2.3 Setting Optimum Resolution

An information message about setting optimum resolution will appear if you power on the product for the first time after purchase.

Select a language and change the resolution to the optimum value.


The optimal resolution for this monitor is as follows:
1920 x 1080 60Hz
Follow the above settings to set the resolution.
English

1. Press [∧/∨] to move to the language you want and press the [⏎].
2. To hide the information message, press [▥].

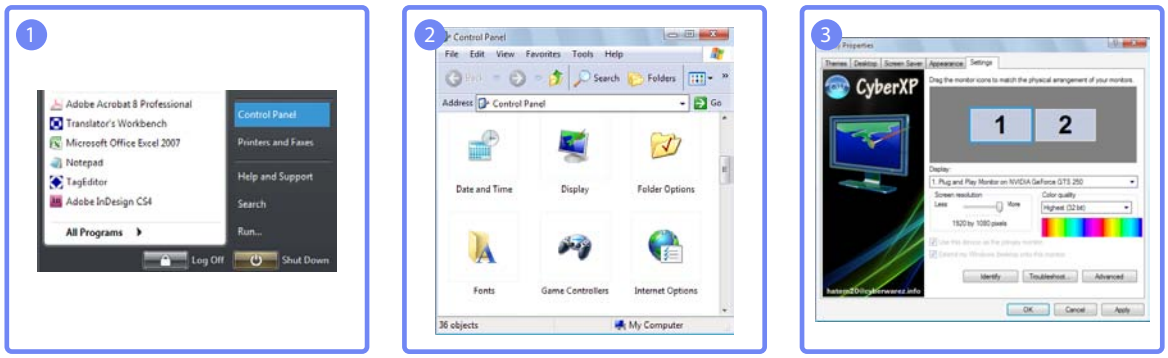
- If the optimum resolution is not selected, the message will appear up to three times for a specified time even when the product is turned off and on again.
- The optimum resolution (1920 x 1080) can also be selected in Control Panel on your PC.

3.2.4 Changing the Resolution Using a PC

- Adjust the resolution and refresh rate in Control Panel on your PC to obtain optimum picture quality.
- The picture quality of TFT-LCDs may degrade if the optimum resolution is not selected.

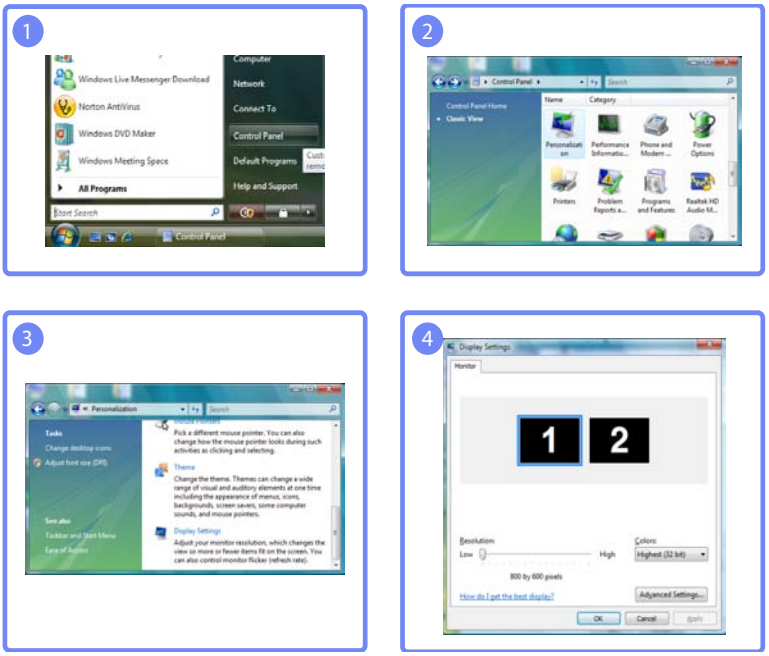
Changing the Resolution on Windows XP

Go to Control Panel ⟶ Display ⟶ Settings and change the resolution.



Changing the Resolution on Windows Vista

Go to Control Panel ⟶ Personalization ⟶ Display Settings and change the resolution.



Changing the Resolution on Windows 7

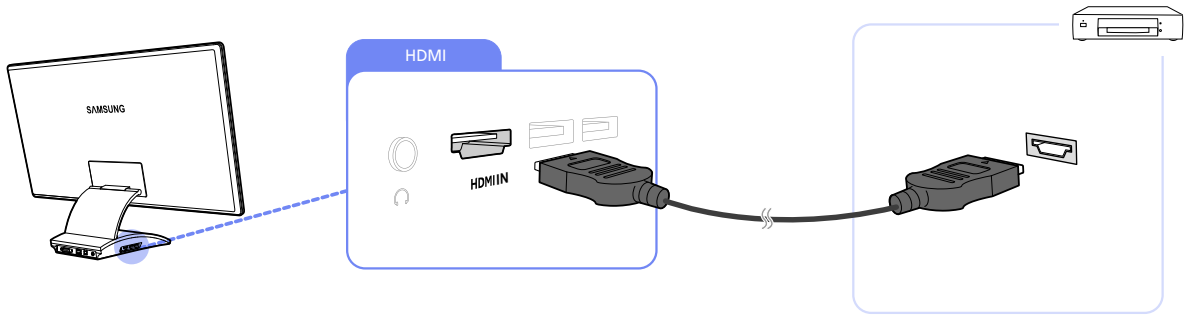
Go to Control Panel ⟶ Display ⟶ Screen Resolution and change the resolution.

3.3 Connecting to a Video Device

- The product can be connected to a video device.

Connecting parts may differ in different products.

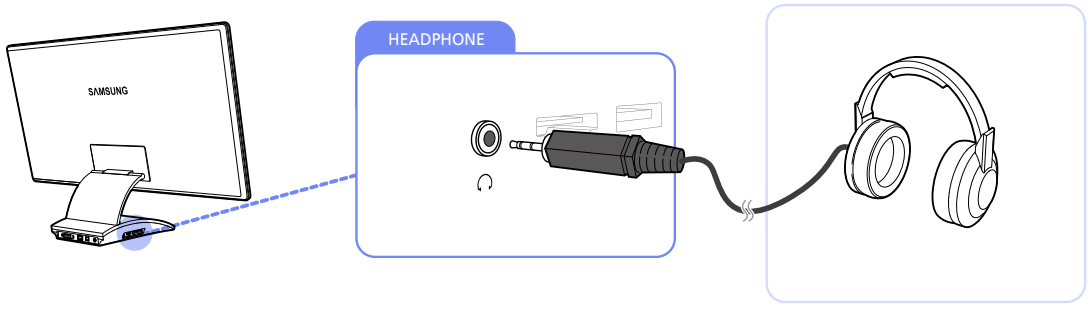
3.3.1 Connection Using an HDMI Cable



1. Connect an HDMI cable to the HDMI ports on the product and video device.
2. Press [⧉] to change the input source to HDMI.

Be sure to connect an audio output device such as headphones or speakers to [🎧] on the product to hear audio.

3.4 Connecting Headphones



- Connect an audio output device such as headphones or speakers to [🎧] on the product.

Headphones will function properly if the product is connected to a PC via USB, Wireless USB or HDMI.

4 Screen Setup

Configure the screen settings such as brightness and color tone.

4.1 MAGIC

This feature provides the viewing angle, brightness, and tint to suit your preferences.

4.1.1 SAMSUNG MAGIC Angle

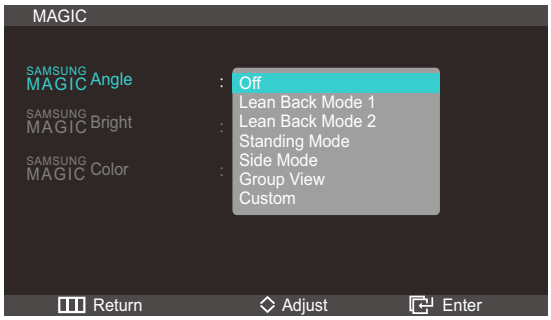
SAMSUNG MAGIC Angle allows you to configure the settings to obtain the optimum picture quality according to your viewing angle.

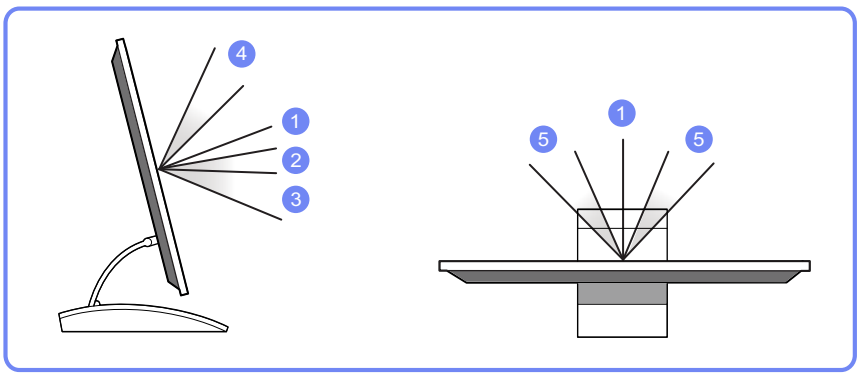
You can enjoy similar picture quality to when you view directly in front of the product by selecting a viewing mode appropriate for each viewing angle.

- This option is not available when SAMSUNG MAGIC Bright is in Cinema or Dynamic Contrast mode.
- This option is not available when SAMSUNG MAGIC Color is enabled.

Configuring SAMSUNG MAGIC Angle

1. Press [ ] on the product.
2. Press [∧/∨] to move to Picture and press [ ] on the product.
3. Press [∧/∨] to move to MAGIC and press [ ] on the product.
4. Press [∧/∨] to move to SAMSUNG MAGIC Angle and press [ ] on the product. The following screen will appear.





- Off ①: Select this option to view directly in front of the product.
- Lean Back Mode 1 ②: Select this option to view from a place slightly lower than the product.

- Lean Back Mode 2 ③: Select this option to view from a place lower than Lean Back Mode 1 ② mode.
- Standing Mode ④: Select this option to view from a place higher than the product.
- Side Mode ⑤: Select this option to view from either side of the product.
- Group View: Select this option for more than one viewer to view from places ①, ④ and ⑤.
- Custom: Lean Back Mode 1 will be applied by default if Custom is selected.

5 Press [∧/∨] to move to the option you want and press the [⏎].

6 The selected option will be applied.

4.1.2 SAMSUNG MAGIC Bright

This menu provides an optimum picture quality suitable for the environment where the product will be used.

- This menu is not available when SAMSUNG MAGIC Angle is enabled.
- Sub-options under SAMSUNG MAGIC Bright may vary depending on the settings of "PC/AV Mode." (See "7.5 PC/AV Mode")

Configuring SAMSUNG MAGIC Bright

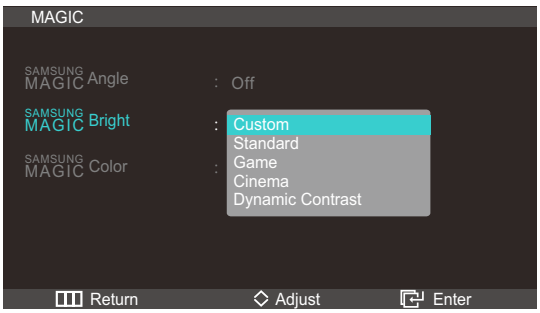
1 Press [▥] on the product.

2 Press [∧/∨] to move to Picture and press [⏎] on the product.

3 Press [∧/∨] to move to MAGIC and press [⏎] on the product.

4 Press [∧/∨] to move to SAMSUNG MAGIC Bright and press [⏎] on the product. The following screen will appear.

In PC mode

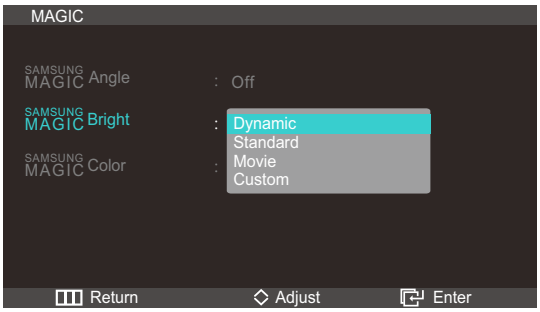


- Adjusting Contrast when SAMSUNG MAGIC Bright is set to Cinema will automatically switch the Cinema mode to Custom mode.
- Adjusting Brightness or Contrast when SAMSUNG MAGIC Bright is set to Dynamic Contrast will automatically switch the Dynamic Contrast mode to Custom mode.

- Custom: Customize the contrast and brightness as required.
- Standard: Obtain a picture quality suitable for editing documents or using Internet.

- Game: Obtain a picture quality suitable for playing games that involve many graphic effects and dynamic movements.
- Cinema: Obtain the brightness and sharpness of TVs suitable for enjoying video and DVD content.
- Dynamic Contrast: Obtain balanced brightness through automatic contrast adjustment.

In AV mode



- Dynamic: This mode is suitable when the ambient light is bright.
- Standard: This mode is generally suitable for any environment.
- Movie: This mode reduces eye fatigue.
- Custom: Customize the contrast and brightness as required.

5 Press [∧/∨] to move to the option you want and press the [⏎].

6 The selected option will be applied.

4.1.3 Configuring SAMSUNG MAGIC Color

SAMSUNG MAGIC Color is a new picture-quality improvement technology developed independently by Samsung, which delivers vivid natural colors without picture quality degradation.

- This menu is not available when SAMSUNG MAGIC Angle is enabled.
- Not available when SAMSUNG MAGIC Bright is in Cinema or Dynamic Contrast mode.

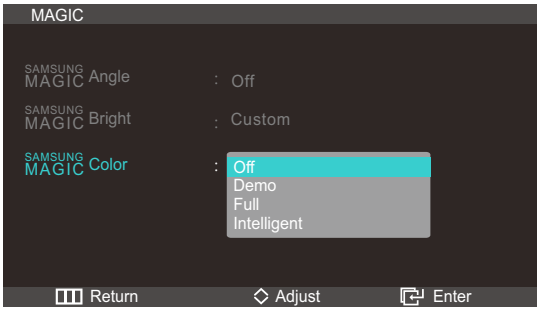
Configuring SAMSUNG MAGIC Color

1 Press [▥] on the product.

2 Press [∧/∨] to move to Picture and press [⏎] on the product.

3 Press [∧/∨] to move to MAGIC and press [⏎] on the product.

4 Press [∧/∨] to move to SAMSUNG MAGIC Color and press [⏎] on the product. The following screen will appear.



- Off: Disable SAMSUNG MAGIC Color.
- Demo: Compare normal screen mode with SAMSUNG MAGIC Color mode.
- Full: Obtain a vivid picture quality for all areas including the flesh colors in the picture.
- Intelligent: Improve the chroma for all areas except the flesh colors in the picture.

5 Press [∧/∨] to move to the option you want and press the [⏎].

6 The selected option will be applied.

4.2 Brightness

Adjust the general brightness of the picture. (Range: 0~100)

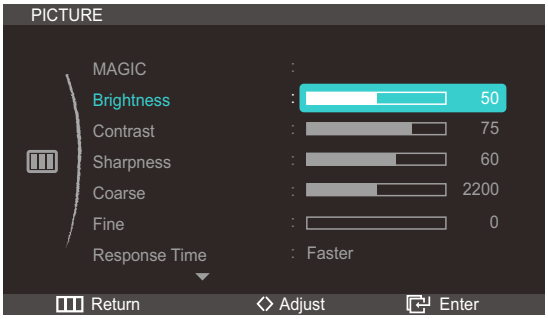
A higher value will make the picture appear brighter.

4.2.1 Configuring Brightness

1 Press [▥] on the product.

2 Press [∧/∨] to move to Picture and press [⏎] on the product.

3 Press [∧/∨] to move to Brightness and press [⏎] on the product. The following screen will appear.



4 Adjust the Brightness using the [</>] button.

4.3 Contrast

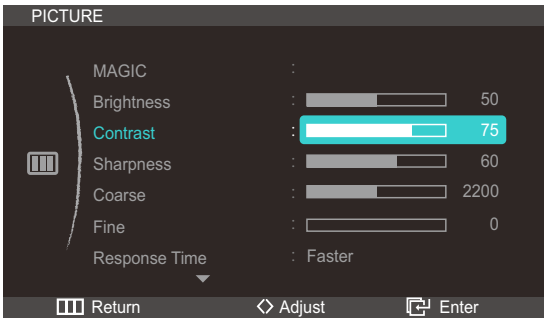
Adjust the contrast between the objects and background. (Range: 0~100)

A higher value will increase the contrast to make the object appear clearer.

This option is not available when SAMSUNG MAGIC Color is in Full or Intelligent mode.

4.3.1 Configuring Contrast

1. Press [ ] on the product.
2. Press [∧/∨] to move to Picture and press [ ] on the product.
3. Press [∧/∨] to move to Contrast and press [ ] on the product. The following screen will appear.



4. Adjust the Contrast using the [</>] button.

4.4 Sharpness

Make the outline of objects more clear or blurry. (Range: 0~100)

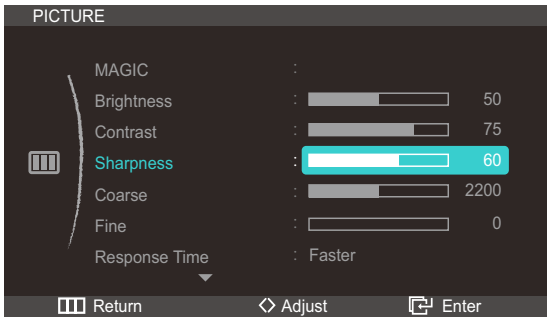
A higher value will make the outline of objects clearer.

- This option is not available when SAMSUNG MAGIC Bright is in Cinema or Dynamic Contrast mode.
- This option is not available when SAMSUNG MAGIC Color is in Full or Intelligent mode.

4.4.1 Configuring Sharpness

1. Press [ ] on the product.
2. Press [∧/∨] to move to Picture and press [ ] on the product.

3 Press [∧/∨] to move to Sharpness and press [⏎] on the product. The following screen will appear.



4 Adjust the Sharpness using the [</>] button.

4.5 Coarse

Adjust the screen frequency.

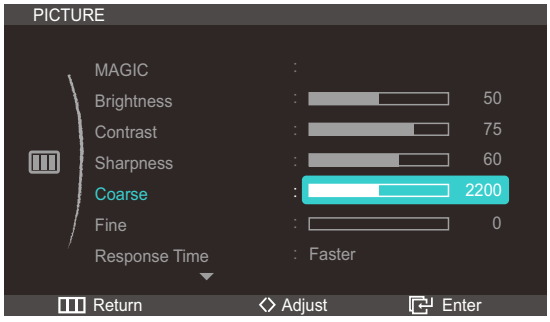
Only available in Analog mode.

4.5.1 Adjusting Coarse

1 Press [⊞] on the product.

2 Press [∧/∨] to move to Picture and press [⏎] on the product.

3 Press [∧/∨] to move to Coarse and press [⏎] on the product. The following screen will appear.



4 Adjust the Coarse using the [</>] button.

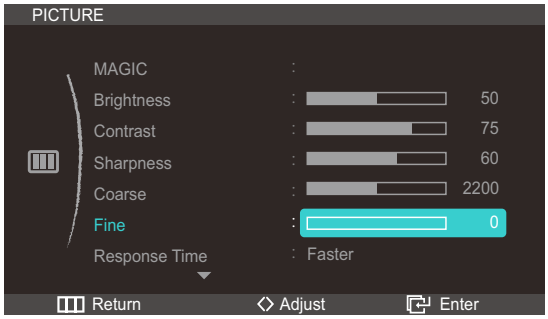
4.6 Fine

Fine-adjust the screen to obtain a vivid picture.

Only available in Analog mode.

4.6.1 Adjusting Fine

1. Press [▥] on the product.
2. Press [∧/∨] to move to Picture and press [⏎] on the product.
3. Press [∧/∨] to move to Fine and press [⏎] on the product. The following screen will appear.



4. Adjust the Fine using the [</>] button.

4.7 Response Time

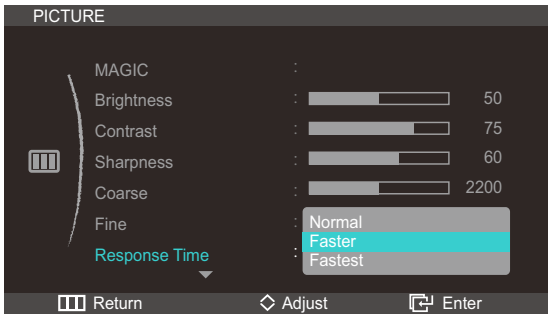
Accelerate the panel response rate to make video appear more vivid and natural.

- It is best to set Response Time to Normal or Faster when you are not viewing a movie.
- The functions available on the monitor may vary depending on the model. Refer to the actual product.

4.7.1 Configuring Response Time

1. Press [▥] on the product.
2. Press [∧/∨] to move to Picture and press [⏎] on the product.

3 Press [∧/∨] to move to Response Time and press [⏎] on the product. The following screen will appear.



4 Press [∧/∨] to move to the option you want and press the [⏎].

5 The selected option will be applied.

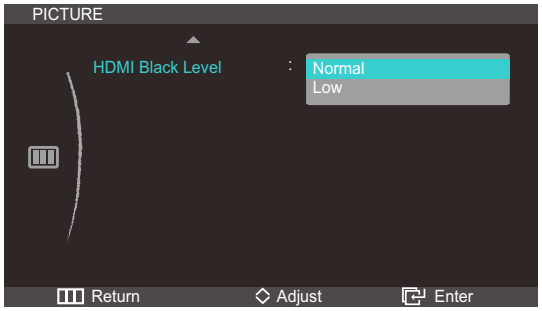
4.8 HDMI Black Level

If you use the product by connecting to a DVD player or set-top box with a HDMI cable, the contrast and color may degrade and the picture may be darker. If this is the case, correct the degraded picture quality using HDMI Black Level.

1 Press [⊞] on the product.

2 Press [∧/∨] to move to Picture and press [⏎] on the product.

3 Press [∧/∨] to move to HDMI Black Level and press [⏎] on the product. The following screen will appear.



- Normal: Set the brightness (darkness) of the darkest parts of the screen to Normal.
- Low: Set the brightness (darkness) of the darkest parts of the screen to be darker than Normal.

4 Press [∧/∨] to move to the option you want and press the [⏎].

5 The selected option will be applied.

- Only available when the product is connected to a source device via an HDMI cable.
- HDMI Black Level may not be compatible with some source devices.

5 Configuring Tint

Adjust the tint of the screen. This option is not available when SAMSUNG MAGIC Bright is set to Cinema or Dynamic Contrast mode.

5.1 Red

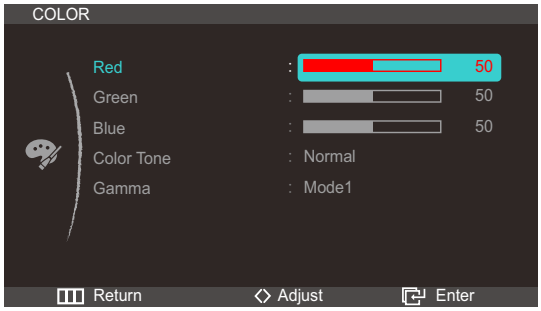
Adjust the value of the color red in the picture. (Range: 0~100)

A higher value will increase the intensity of the color.

This option is not available when SAMSUNG MAGIC Color is in Full or Intelligent mode.

5.1.1 Configuring Red

1. Press [ ] on the product.
2. Press [∧/∨] to move to COLOR and press [ ] on the product.
3. Press [∧/∨] to move to Red and press [ ] on the product. The following screen will appear.



4. Adjust the Red using the [</>] button.

5.2 Green

Adjust the value of the color green in the picture. (Range: 0~100)

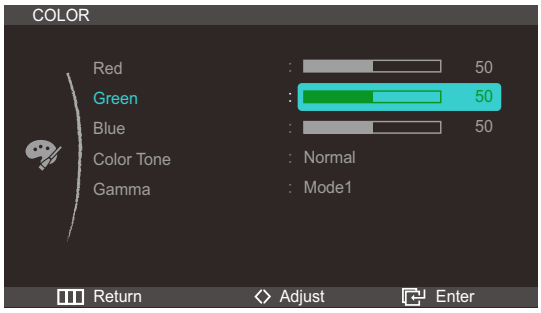
A higher value will increase the intensity of the color.

This option is not available when SAMSUNG MAGIC Color is in Full or Intelligent mode.

5.2.1 Configuring Green

1. Press [ ] on the product.
2. Press [∧/∨] to move to COLOR and press [ ] on the product.

3 Press [∧/∨] to move to Green and press [⏎] on the product. The following screen will appear.



4 Adjust the Green using the [</>] button.

5.3 Blue

Adjust the value of the color blue in the picture. (Range: 0~100)

A higher value will increase the intensity of the color.

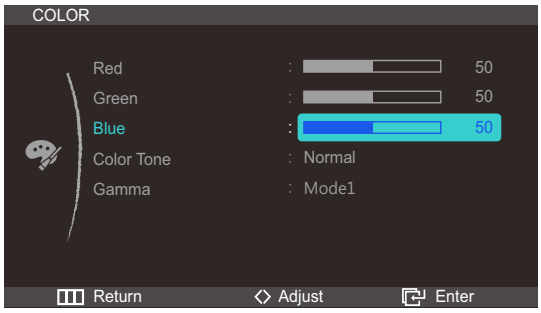
This option is not available when SAMSUNG MAGIC Color is in Full or Intelligent mode.

5.3.1 Configuring Blue

1 Press [▥] on the product.

2 Press [∧/∨] to move to COLOR and press [⏎] on the product.

3 Press [∧/∨] to move to Blue and press [⏎] on the product. The following screen will appear.



4 Adjust the Blue using the [</>] button.

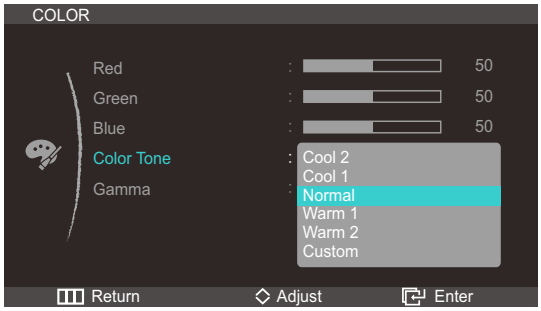
5.4 Color Tone

Adjust the general color tone of the picture.

- This option is not available when SAMSUNG MAGIC Angle is enabled.
- This option is not available when SAMSUNG MAGIC Color is in Full or Intelligent mode.

5.4.1 Configuring the Color Tone Settings

1. Press [ ] on the product.
2. Press [∧/∨] to move to COLOR and press [ ] on the product.
3. Press [∧/∨] to move to Color Tone and press [ ] on the product. The following screen will appear.



- Cool2: Set the color temperature to be cooler than Cool1.
- Cool1: Set the color temperature to be cooler than Normal mode.
- Normal: Display the standard color tone.
- Warm1: Set the color temperature to be warmer than Normal mode.
- Warm2: Set the color temperature to be warmer than Warm1.
- Custom: Customize the color tone.

4. Press [∧/∨] to move to the option you want and press the [ ].
5. The selected option will be applied.

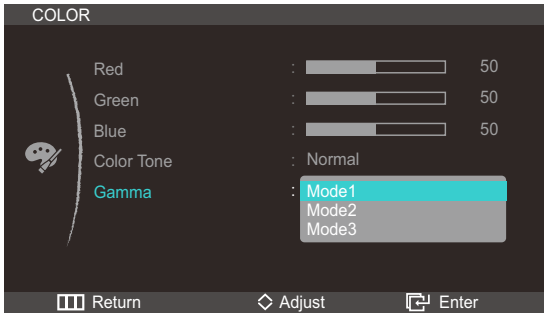
5.5 Gamma

Adjust the mid-range brightness (Gamma) of the picture.

This option is not available when SAMSUNG MAGIC Angle is enabled.

5.5.1 Configuring Gamma

1. Press [ ] on the product.
2. Press [∧/∨] to move to COLOR and press [ ] on the product.
3. Press [∧/∨] to move to Gamma and press [ ] on the product. The following screen will appear.



4. Press [∧/∨] to move to the option you want and press the [ ].
5. The selected option will be applied.

6 Resizing or Relocating the Screen

6.1 Auto Adjustment

This function can be used to automatically adjust the Coarse, Fine and position settings.

This function can be used to automatically detect and remove noise on the screen and correct the screen position.

This function will automatically run if the screen resolution is changed.

Only available in Analog mode.

6.1.1 Configuring the Auto Adjustment Settings

1. Press [ ] on the product.
2. Press [∧/∨] to move to SIZE&POSITION and press [ ] on the product.
3. Press [∧/∨] to move to Auto Adjustment and press [ ] on the product. The following screen will appear.

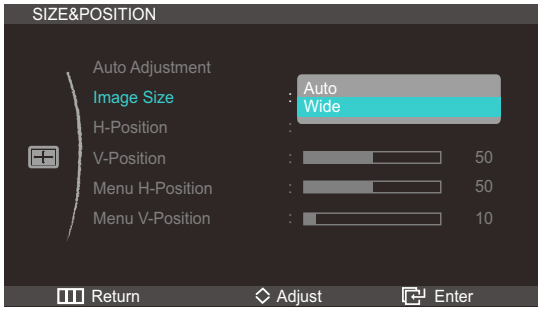
6.2 Size

Change the picture size.

6.2.1 Changing the Picture Size

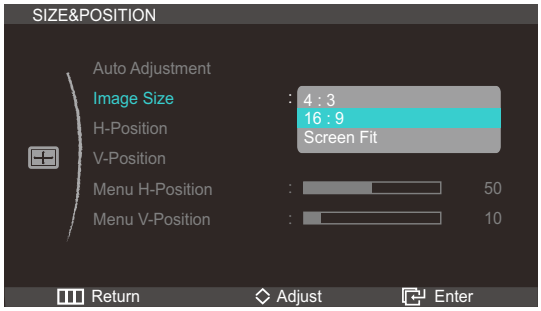
1. Press [ ] on the product.
2. Press [∧/∨] to move to SIZE&POSITION and press [ ] on the product.
3. Press [∧/∨] to move to Image Size and press [ ] on the product. The following screen will appear.

In PC mode



- Auto: Display the picture according to the aspect ratio of the input source.
- Wide: Display the picture in full screen regardless of the aspect ratio of the input source.

In AV mode



- 4:3: Display the picture with an aspect ratio of 4:3. Suitable for videos and standard broadcasts.
- 16:9: Display the picture with an aspect ratio of 16.9. Suitable for DVD content or widescreen broadcasts.
- Screen Fit: Display the picture with the original aspect ratio without cutting off.

- PC/AV Mode is only available in HDMI mode.
- H-Position or V-Position can be adjusted if Size is set to Screen Fit.
- Refer to "7.5 PC/AV Mode" for details about PC/AV Mode.

4 Press [∧/∨] to move to the option you want and press the [⏎].

5 The selected option will be applied.

6.3 Horizontal Position

Move the screen to the left or right.

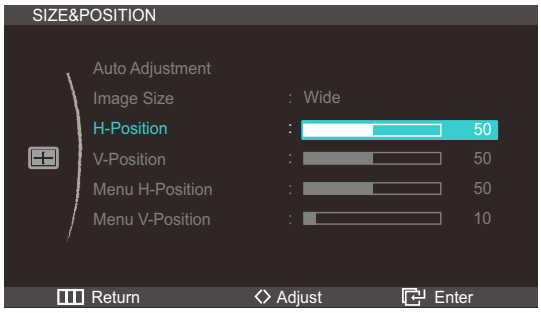
- Only available in Analog mode.
- H-Position or V-Position can be adjusted if Size is set to Screen Fit.

6.3.1 Configuring H-Position

1 Press [☰] on the product.

2 Press [∧/∨] to move to SIZE&POSITION and press [⏎] on the product.

3 Press [∧/∨] to move to H-Position and press [⏎] on the product. The following screen will appear.



4 Adjust the H-Position using the [</>] button.

6.4 Vertical Position

Move the screen up or down.

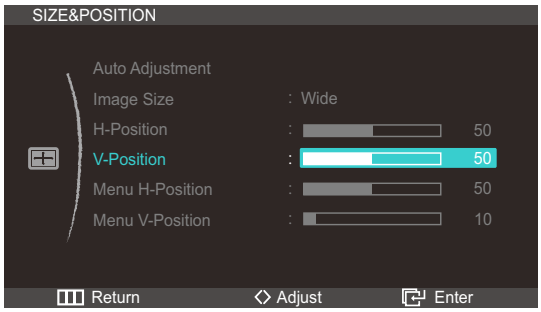
- Only available in Analog mode.
- H-Position or V-Position can be adjusted if Size is set to Screen Fit.

6.4.1 Configuring V-Position

1 Press [⊞] on the product.

2 Press [∧/∨] to move to SIZE&POSITION and press [⏎] on the product.

3 Press [∧/∨] to move to V-Position and press [⏎] on the product. The following screen will appear.



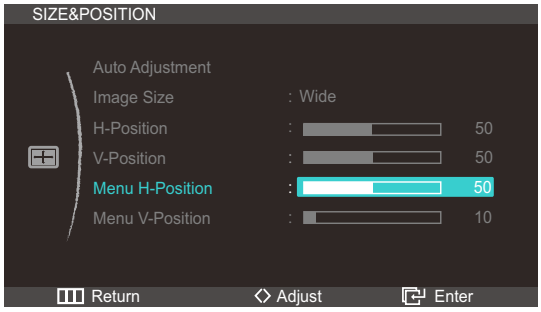
4 Adjust the V-Position using the [</>] button.

6.5 Menu H-Position

Move the menu position to the left or right.

6.5.1 Configuring Menu H-Position

1. Press [ ] on the product.
2. Press [∧/∨] to move to SIZE&POSITION and press [ ] on the product.
3. Press [∧/∨] to move to Menu H-Position and press [ ] on the product. The following screen will appear.



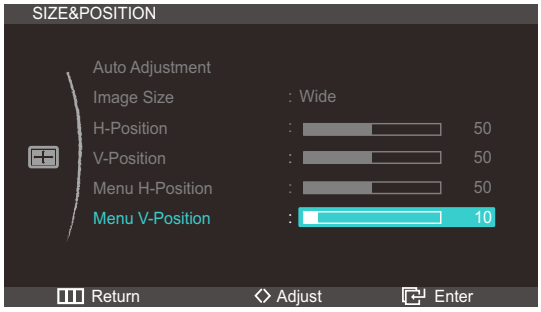
4. Adjust the Menu H-Position using the [</>] button.

6.6 Menu V-Position

Move the menu position up or down.

6.6.1 Configuring Menu V-Position

1. Press [ ] on the product.
2. Press [∧/∨] to move to SIZE&POSITION and press [ ] on the product.
3. Press [∧/∨] to move to Menu V-Position and press [ ] on the product. The following screen will appear.



4. Adjust the Menu V-Position using the [</>] button.

7.1 HUB

Configure the settings to use the HUB function on the product.

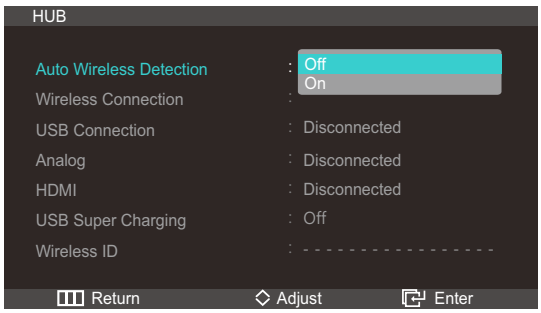
- Refer to "2.1 About "HUB Monitor"" for details about how to use the HUB function.
- To open the HUB settings screen, press HUB on the stand.

7.1.1 Auto Wireless Detection

If the product is connected to a PC via Wireless USB, it will automatically detect the Wireless USB signal and change the input source to Wireless USB mode.

Configuring Auto Wireless Detection

1. Press [ ] on the product.
2. Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.
3. Press [∧/∨] to move to HUB and press [ ] on the product.
4. Press [∧/∨] to move to Auto Wireless Detection and press [ ] on the product. The following screen will appear.



- Off: Deactivate the auto wireless detection mode.
- On: Automatically detect a Wireless USB signal and change the input source to Wireless USB mode.

5. Press [∧/∨] to move to the option you want and press the [ ].
6. The selected option will be applied.

7.1.2 Wireless Connection

You can view the status of the Wireless USB connection between the product and a PC.

Select the Wireless Connection option. The input source will change to Wireless USB mode.

- The connection status will be shown even when the input source is not Wireless USB mode.
- Selecting Wireless Connection when a Wireless USB connection is established will change the input source to Wireless USB mode.

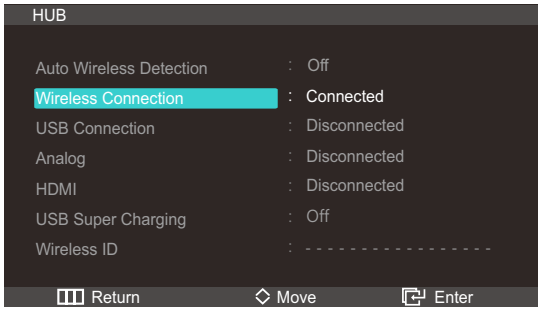
Activating Wireless Connection

1 Press [ ] on the product.

2 Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.

3 Press [∧/∨] to move to HUB and press [ ] on the product. A message will appear indicating that a Wireless USB connection is established or disconnected.

4 If a Wireless USB connection is established, press [∧/∨] to move to Wireless Connection and press [ ]. The input source will change to Wireless USB mode.


HUB
Auto Wireless Detection : Off
Wireless Connection : Connected
USB Connection : Disconnected
Analog : Disconnected
HDMI : Disconnected
USB Super Charging : Off
Wireless ID : - - - - - - - - - - - - - - - - - -
Return
Move
Enter

7.1.3 USB Connection

You can view the USB cable connection status between the product and a PC.

- The connection status will be shown even when the input source is not USB mode.
- Selecting the USB Connection option when a USB cable is connected will change the input source to USB mode.

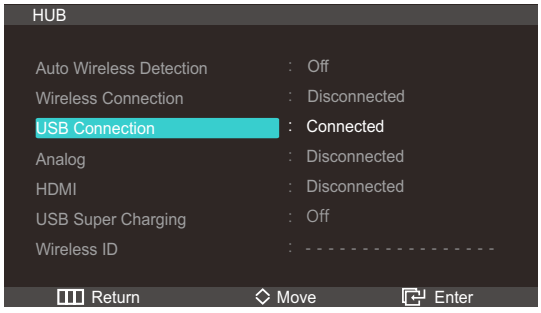
Configuring USB Connection

1 Press [ ] on the product.

2 Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.

3 Press [∧/∨] to move to HUB and press [ ] on the product. A message will appear indicating that a USB cable is connected or disconnected.

4 If a USB cable is connected, press [∧/∨] to move to USB Connection and press [ ]. The input source will change to USB mode.


HUB
Auto Wireless Detection : Off
Wireless Connection : Disconnected
USB Connection : Connected
Analog : Disconnected
HDMI : Disconnected
USB Super Charging : Off
Wireless ID : - - - - - - - - - - - - - - - - - -
Return
Move
Enter

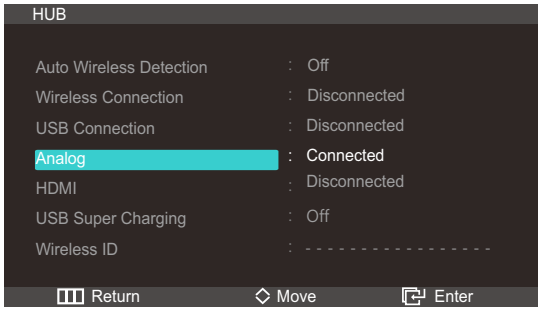
7.1.4 Analog

You can view the Analog cable connection status between the product and a PC.

- The connection status will be shown even when the input source is not Analog mode.
- Selecting the Analog option when an analog cable is connected will change the input source to Analog mode.

Configuring Analog

1. Press [ ] on the product.
2. Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.
3. Press [∧/∨] to move to HUB and press [ ] on the product. A message will appear indicating that an analog cable is connected or disconnected.
4. If an analog cable is connected, press [∧/∨] to move to Analog and press [ ]. The input source will change to Analog mode.


HUB
Auto Wireless Detection : Off
Wireless Connection : Disconnected
USB Connection : Disconnected
Analog : Connected
HDMI : Disconnected
USB Super Charging : Off
Wireless ID : - - - - - - - - - - - - - - - - - -
Return
Move
Enter

7.1.5 HDMI

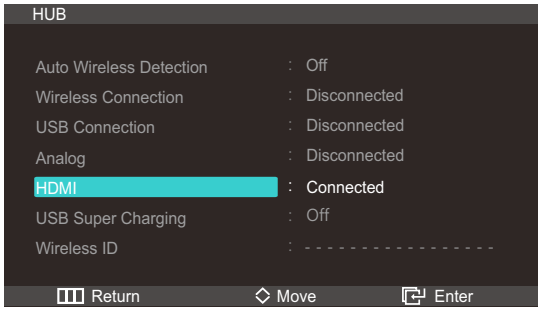
You can view the HDMI connection status between the product and an AV device.

- The connection status will be shown even when the input source is not HDMI mode.
- Selecting the HDMI option when an HDMI cable is connected will change the input source to HDMI mode.

Configuring HDMI

1. Press [ ] on the product.
2. Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.
3. Press [∧/∨] to move to HUB and press [ ] on the product. A message will appear indicating that an HDMI cable is connected or disconnected.

4 If an HDMI cable is connected, press [∧/∨] to move to HDMI and press [⏎]. The input source will change to HDMI mode.


HUB
Auto Wireless Detection : Off
Wireless Connection : Disconnected
USB Connection : Disconnected
Analog : Disconnected
HDMI : Connected
USB Super Charging : Off
Wireless ID : - - - - - - - - - - - - - - - - -
Return
Move
Enter

7.1.6 USB Super Charging

A source device's battery can be charged quickly via USB 3.0 port on the product.

- Data transmission is not available if USB Super Charging is on.
- To enable standard charging or data transmission, set USB Super Charging to off.
- The input source does not need to be changed.

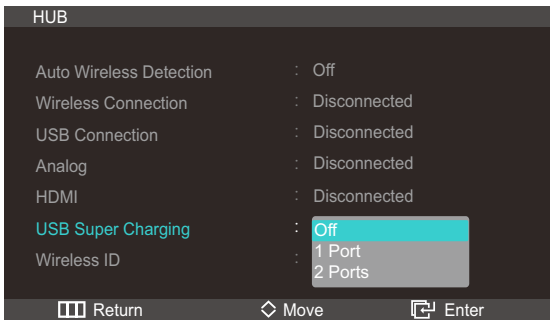
Configuring USB Super Charging

1 Press [⊞] on the product.

2 Press [∧/∨] to move to SETUP&RESET, and press [⏎] on the product.

3 Press [∧/∨] to move to HUB, and press [⏎] on the product.

4 Press [∧/∨] to move to USB Super Charging, and press [⏎] on the product. The following screen will appear.



- Off: Disable USB Super Charging.
- 1 Port: Enable a single USB 3.0 port (marked with a charging icon) for quick battery charging.

  Quick battery charging is available only through one USB 3.0 port (it is found on the left side and is the port closest to you when facing the front of the monitor).

- 2 Ports: Enable two USB 3.0 ports for quick battery charging.

5 Press [∧/∨] to move to the option you want, and press [⏎] .

6 The selected option will be applied.

7.1.7 Wireless ID

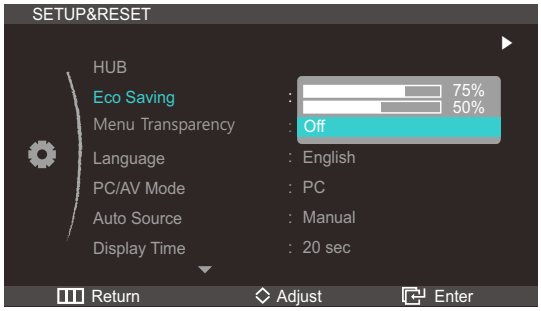
Wireless ID is a unique ID assigned to a monitor. The "Samsung HUB Monitor Setup" program reads the ID and identifies each of nearby monitors. The ID is shown in the "Samsung HUB Monitor Setup" program and in the lower part of the HUB menu.

7.2 Eco Saving

Adjust the power consumption of the product to save energy.

7.2.1 Configuring Eco Saving

1. Press [ ] on the product.
2. Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.
3. Press [∧/∨] to move to Eco Saving and press [ ] on the product. The following screen will appear.



- 75%: Reduce the power consumption of the product to 75%.
- 50%: Reduce the power consumption of the product to 50%.
- Off: Deactivate power-saving mode.

4. Press [∧/∨] to move to the option you want and press the [ ].
5. The selected option will be applied.

7.3 Menu Transparency

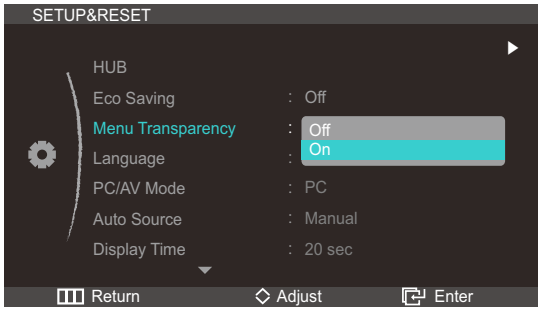
Set the transparency for the menu windows:

7.3.1 Changing Menu Transparency

1 Press [ ] on the product.

2 Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.

3 Press [∧/∨] to move to Menu Transparency and press [ ] on the product. The following screen will appear.



4 Press [∧/∨] to move to the option you want and press the [ ].

5 The selected option will be applied.

7.4 Language

Set the menu language.

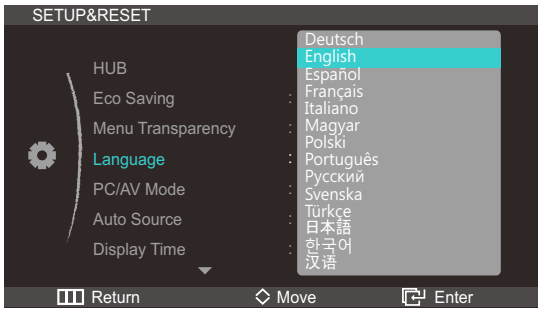
- A change to the language setting will only be applied to the onscreen menu display.
- It will not be applied to other functions on your PC.

7.4.1 Changing the Language

1 Press [ ] on the product.

2 Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.

3 Press [∧/∨] to move to Language and press [⏎] on the product. The following screen will appear.



4 Press [∧/∨] to move to the option you want and press the [⏎].

5 The selected option will be applied.

7.5 PC/AV Mode

Set PC/AV Mode to AV. The picture size will be enlarged. This option is useful when you view a movie.

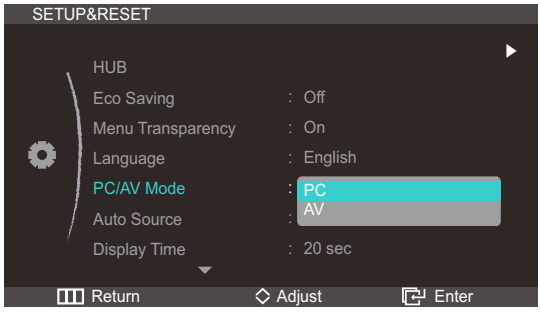
PC/AV Mode is only available in HDMI mode.

7.5.1 Configuring PC/AV Mode

1 Press [⊞] on the product.

2 Press [∧/∨] to move to SETUP&RESET and press [⏎] on the product.

3 Press [∧/∨] to move to PC/AV Mode and press [⏎] on the product. The following screen will appear.



4 Press [∧/∨] to move to the option you want and press the [⏎].

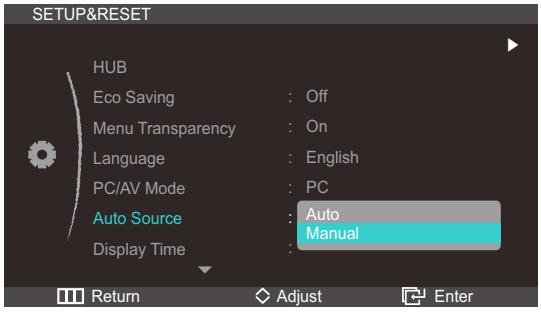
5 The selected option will be applied.

7.6 Auto Source

Activate Auto Source.

7.6.1 Configuring Auto Source

1. Press [ ] on the product.
2. Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.
3. Press [∧/∨] to move to Auto Source and press [ ] on the product. The following screen will appear.



- Auto: The input source is automatically recognized.
- Manual: Manually select an input source.

4. Press [∧/∨] to move to the option you want and press the [ ].
5. The selected option will be applied.

7.7 Display Time

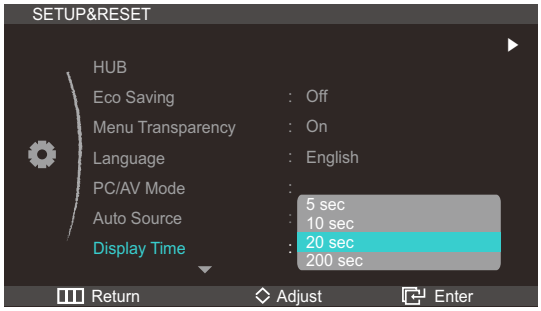
Set the on screen display (OSD) menu to automatically disappear if the menu is not used for a specified period of time.

Display Time can be used to specify the time after which you want the OSD menu to disappear.

7.7.1 Configuring Display Time

1. Press [ ] on the product.
2. Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.

3 Press [∧/∨] to move to Display Time and press [⏎] on the product. The following screen will appear.



4 Press [∧/∨] to move to the option you want and press the [⏎].

5 The selected option will be applied.

7.8 Key Repeat Time

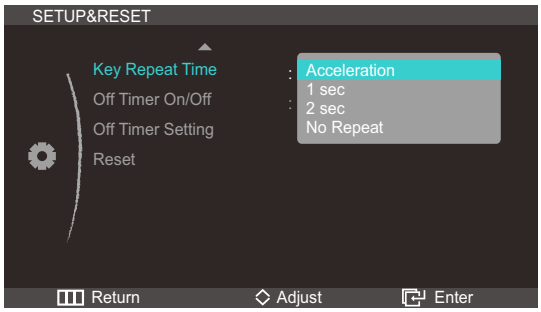
Control the response rate of a button when the button is pressed.

7.8.1 Configuring Key Repeat Time

1 Press [⊞] on the product.

2 Press [∧/∨] to move to SETUP&RESET and press [⏎] on the product.

3 Press [∧/∨] to move to Key Repeat Time and press [⏎] on the product. The following screen will appear.



- Acceleration, 1 sec, or 2 sec can be selected. If No Repeat is selected, a command responds only once when a button is pressed.

4 Press [∧/∨] to move to the option you want and press the [⏎].

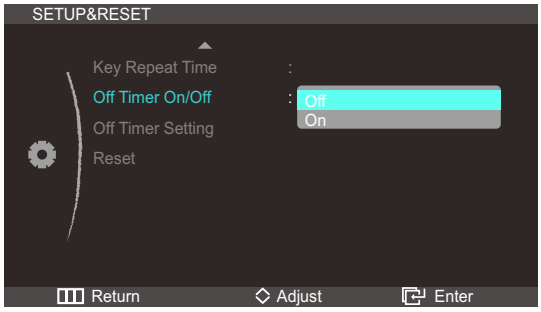
5 The selected option will be applied.

7.9 Off Timer On/Off

Enable or disable the off timer that automatically powers off the product.

7.9.1 Configuring Off Timer On/Off

1. Press [ ] on the product.
2. Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.
3. Press [∧/∨] to move to Off Timer On/Off and press [ ] on the product. The following screen will appear.



- Off: Deactivate the off timer so that the product does not power off automatically.
- On: Activate the off timer so that the product powers off automatically.

4. Press [∧/∨] to move to the option you want and press the [ ].
5. The selected option will be applied.

7.10 Off Timer Setting

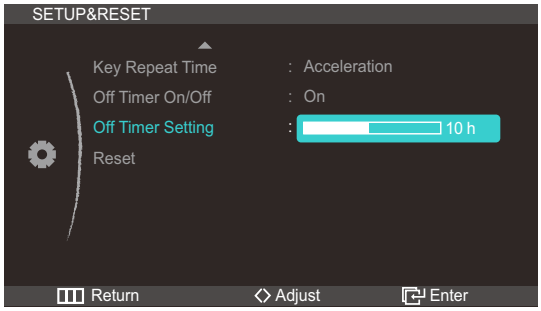
The off timer can be set within a range of 1 to 23 hours. The product will automatically power off after the specified number of hours.

This option is only available when Off Timer On/Off is set to On.

7.10.1 Configuring Off Timer Setting

1. Press [ ] on the product.
2. Press [∧/∨] to move to SETUP&RESET and press [ ] on the product.

3 Press [∧/∨] to move to Off Timer Setting and press [⏎] on the product. The following screen will appear.



4 Press [</>] to configure Off Timer Setting.

7.11 Reset

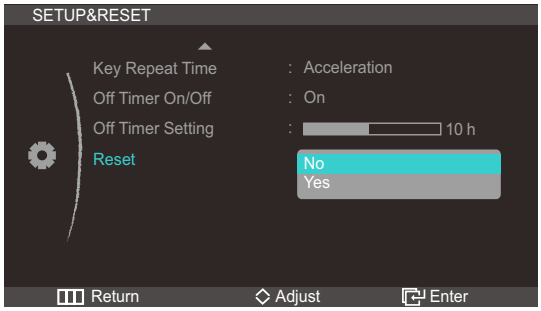
Return all the settings for the product to the default factory settings.

7.11.1 Initializing Settings (Reset)

1 Press [▥] on the product.

2 Press [∧/∨] to move to SETUP&RESET and press [⏎] on the product.

3 Press [∧/∨] to move to Reset and press [⏎] on the product. The following screen will appear.



4 Press [∧/∨] to move to the option you want and press the [⏎].

5 The selected option will be applied.

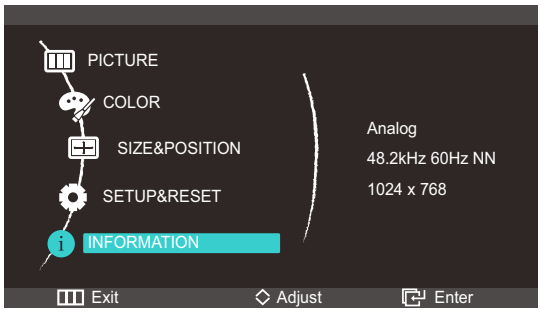
8.1 INFORMATION

View the current input source, frequency and resolution.

8.1.1 Displaying INFORMATION

1 Press [ ] on the product.

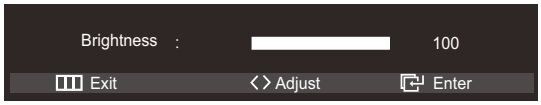
2 Press [∧/∨] to move to INFORMATION. The current input source, frequency and resolution will appear.



8.2 Configuring Brightness in the Startup Screen

Adjust Brightness using the [∧/∨] button in the startup screen where there is no on screen display menu available.

1 Press [∧/∨] in the startup screen. The following screen will appear.



2 Adjust the Brightness using the [</>] button.

8.3 Configuring Volume in the Startup Screen

Adjust Volume using the [</>] button in the startup screen where there is no on screen display menu available.

Only available in HDMI mode.

1 Press [</>] in the startup screen. The following screen will appear.

2 Adjust the Volume using the [</>] button.

8.4 Configuring HUB in the Initial Screen

The HUB settings screen can be opened by pressing the [Hub] button on the stand when the initial screen (that displays no OSD menu) is displayed.

1 Press the [Hub] button when the initial screen is displayed.

You can configure the settings for Auto Wireless Detection, Wireless Connection, USBConnection, Analog, HDMI or USB Super Charging. You can also view the wireless ID (Wireless ID).

2 Configure the settings as required using the [∧/∨] buttons.

Refer to "7.1HUB"for further details on how to use the HUB function.

9 Troubleshooting Guide

9.1 Requirements Before Contacting Samsung Customer Service Center

9.1.1 Testing the Product

Before calling Samsung Customer Service Center, test your product as follows. If the problem persists, contact Samsung Customer Service Center.

Check if your product is operating normally by using the product test function.

If the screen is turned off and the power indicator blinks even though the product is properly connected to a PC, perform a self-diagnosis test.

1. Power off both the PC and product.
2. Disconnect the cable from the product.
3. Power on the product.
4. If the Check Signal Cable message appears, the product is working normally.

   If the screen remains blank, check the PC system, video controller and cable.

9.1.2 Checking the Resolution and Frequency

For a mode that exceeds the supported resolution (refer to "10.3 Standard Signal Mode Table"), the message Not Optimum Mode. will appear for a short time.

9.1.3 Check the followings.

Installation issue (PC mode)	
The screen keeps switching on and off.	Check the cable connection between the product and PC, and ensure the connection is secure. (Refer to "3.2 Connecting and Using a PC")

Screen issue	
The power LED is off. The screen will not switch on.	Check that the power cable is connected correctly (Refer to "3.2 Connecting and Using a PC")
The message Check Signal Cable appears.	Check that the cable is properly connected to the product. (Refer to "3.2 Connecting and Using a PC")
	Check that the device connected to the product is powered on.

Screen issue	
"Not Optimum Mode" is displayed.	This message appears if the signal from the graphics card exceeds the maximum resolution or frequency for the product.
	Change the maximum resolution and frequency to suit the product performance, referring to Standard Signal Mode Table (page89).
The images on the screen look distorted.	Check the cable connection to the product (Refer to "3.2 Connecting and Using a PC")
The screen is not clear. The screen is blurry.	Adjust Coarse(page55) and Fine(page56).
	Remove any accessories (video extension cable, etc) and try again.
	Set the resolution and frequency to the recommended level. (Refer to "10.1 General")
The screen appears unstable and shaky.	Check that the resolution and frequency for the PC are within the range of resolution and frequency compatible with the product, and if required, change the settings, referring to Standard Signal Mode Table (page89) in this manual and the INFORMATION menu on the product.
There are shadows or ghost images left on the screen.	
The screen is too bright. The screen is too dark.	Adjust Brightness(page53) and Contrast(page54).
Screen color is inconsistent.	Change the COLOR settings. (Refer to "Configuring Tint" ON PAGE 58)
The colors on the screen have a shadow and are distorted.	Change the COLOR settings. (Refer to "Configuring Tint" ON PAGE 58)
White does not really look white.	Change the COLOR settings. (Refer to "Configuring Tint" ON PAGE 58)
There is no image on the screen and the power LED blinks every 0.5 to 1 second.	The product is in power-saving mode.
	Press any key on the keyboard or move the mouse to return to the previous screen.

Sound issue	
There is no sound.	Check the connection of the audio cable or adjust the volume.
	Check the volume.

Sound issue	
The volume is too low.	Adjust the volume.
	If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software program.

Source device issue	
A beeping sound is heard when my PC is booting.	If a beeping sound is heard when your PC is booting, have your PC serviced.

9.2 Q & A

Question	Answer
How can I change the frequency?	Set the frequency on your graphics card. • Windows XP: Select Control Panel → Appearance and Themes → Display → Settings → Advanced → Monitor, and adjust Refresh rate under Monitor settings. • Windows ME/2000: Select Control Panel → Display → Settings → Advanced → Monitor, and adjust Refresh rate under Monitor settings. • Windows Vista: Select Control Panel → Appearance and Personalization → Personalization → Display Settings → Advanced Settings → Monitor, and adjust Refresh rate under Monitor settings. • Windows 7: Select Control Panel → Appearance and Personalization → Display → Screen Resolution → Advanced settings → Monitor, and adjust Refresh rate under Monitor settings.

Question	Answer
How can I change the resolution?	• Windows XP: Go to Control Panel → Appearance and Themes → Display → Settings and adjust the resolution. • Windows ME/2000: Go to Control Panel → Display → Settings and adjust the resolution. • Windows Vista: Go to Control Panel → Appearance and Personalization → Personalize → Display Settings and adjust the resolution. • Windows 7: Go to Control Panel → Appearance and Personalization → Display → Adjust Resolution and adjust the resolution.
How do I set power-saving mode?	• Windows XP: Set power-saving mode in Control Panel → Appearance and Themes → Display → Screen Saver Settings or BIOS SETUP on the PC. • Windows ME/2000: Set power-saving mode in Control Panel → Display → Screen Saver Settings or BIOS SETUP on the PC. • Windows Vista: Set power-saving mode in Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings or BIOS SETUP on the PC. • Windows 7: Set power-saving mode in Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings or BIOS SETUP on the PC.

Refer to the user manual for your PC or graphics card for further instructions on adjustment.

10 Specifications

10.1 General

Model Name		C23A750X	C27A750X
Panel	Size	23.0 inch / 58cm	27.0 inch / 68cm
	Display area	286.74 mm (V) x 509.76 mm (H) 11.3 inches (V) x 20.1 inches (H)	336.15 mm (V) x 597.6 mm (H) 13.2 inches (V) x 23.5 inches (H)
Synchronization	Horizontal Frequency	30~81 kHz	
	Vertical Frequency	49~75 Hz	
Display Color		16.7M (6 bit with Hi-FRC)	
Resolution	Optimum resolution	1920 x 1080 @ 60 Hz	
	Maximum resolution	1920 x 1080 @ 60 Hz	
Maximum Pixel Clock		164 MHz	
Power Supply		This product uses 100 to 240V. Refer to the label at the back of the product as the standard voltage can vary in different countries.	
Signal connectors		USB 3.0, HDMI, D-sub	
Dimensions (W x H x D) / Weight		550.4 x 433.9 x 232.8 mm / 21.7 x 17.1 x 9.2 inches / 4.4 kg / 9.7 lbs	638.6 x 485.4 x 232.8 mm / 25.1 x 19.1 x 9.2 inches / 5.2 kg / 11.5 lbs
Environmental considerations	Operating	Operating Temperature : 50°F ~ 104°F (10°C ~ 40°C) Humidity : 10 % ~ 80 %, non-condensing	
	Storage	Operating Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Humidity : 5% ~ 95%, non-condensing	
Plug-and-Play		This monitor can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the monitor and PC system optimizes the monitor settings. Monitor installation takes place automatically. However, you can customize the installation settings if desired.	
Panel Dots (Pixels)		Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may appear brighter or darker on the LCD panel. This does not affect product performance. LCD panel type 23 (58 cm screen): there are 6,220,800 sub-pixels. LCD panel type 27 (68 cm screen): there are 6,220,800 sub-pixels.	

The above specifications are subject to change without notice to improve quality.

Class B device (broadcast communications device for home use)

This Class B device designed for home use is registered for EMC requirements and can be used in all regions. (Class B devices emit less electromagnetic radiation than Class A devices)

[Recommendation] - EU Only

CE

- Hereby, Samsung Electronics, declares that this [MONITOR] is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
- The official Declaration of Conformity may be found at http://www.samsung.com, go to Support > Search Product Support and enter the model name.
- This equipment may only be used indoors.
- This equipment may be operated in all EU countries.
- This product must not be installed in a fixed location, or in a road or railway vehicle.

10.2 PowerSaver

The power-saving function of this product reduces power consumption by switching off the screen and changing the color of the power LED if the product is not used for a specified period of time. The power is not turned off in power-saving mode. To switch the screen back on, press any key on the keyboard or move the mouse. Power-savign mode only functions when the product is connected to a PC with a power-saving function.

C23A750X

PowerSaver	Normal Operation	Power saving mode	Power off (Power button)
Power Indicator	On	Blinking	Amber
Power Consumption	33.6 W	1W or lower	0.3 W

C27A750X

PowerSaver	Normal Operation	Power saving mode	Power off (Power button)
Power Indicator	On	Blinking	Amber
Power Consumption	43.8W	1W or lower	0.3 W

- The displayed power consumption level can vary in different operating conditions or when settings are changed.

- To reduce the power consumption to 0 watts, turn off the power switch on the back of the product or disconnect the power cable. Be sure to disconnect the power cable when you will not be using the product for an extended period of time. To reduce the power consumption to 0 watts when the power switch is not available, disconnect the power cable.

10.3 Standard Signal Mode Table

This product can be set to only one resolution for each screen size to obtain the optimum picture quality due to the nature of the panel. Therefore, a resolution other than the specified resolution may degrade the picture quality. To avoid this, it is recommended that you select the optimum resolution specified for the screen size of your product.

If a signal that belongs to the following standard signal modes is transmitted from your PC, the screen will automatically be adjusted. If the signal transmitted from the PC does not belong to the standard signal modes, the screen may be blank with the power LED on. In such a case, change the settings according to the following table by referring to the graphics card user manual.

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA, 640 x 480	31.469	59.940	25.175	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1280 x 800	49.702	59.810	83.500	-/+
VESA, 1280 x 960	60.000	60.000	108.000	+/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA,1440 x 900	55.935	59.887	106.500	-/+
VESA,1600 x 1200	75.000	60.000	162.000	+/+
VESA,1680 x 1050	65.290	59.954	146.250	-/+
VESA,1920 x 1080	67.500	60.000	148.500	+/+

- Horizontal Frequency
  The time required to scan a single line from the left to the right side of the screen is called a horizontal cycle. The reciprocal number of a horizontal cycle is called horizontal frequency. Horizontal frequency is measured in kHz.
- Vertical Frequency
  Repeating the same picture dozens of times per second allows you to view natural pictures. The repeat frequency is called "vertical frequency" or "refresh rate" and is indicated in Hz.

10.4 PC Dongle Specification (UWB : Ultra Wide Band)

Standard	UWB
Host Interface	USB 2.0 Downstream Interface
Frequency Range	3.1GHz ~ 10.6Ghz (Operating 3.16GHz ~ 8.97Ghz, BG1, BG2, BG6)
Security	AES128
Data Rate	53.3 to 480 Mbps
Sensitivity / Output Power	Transmitted signal PSD -41.3 dBm/MHz (Regulatory limit is -41.3dBm/Mhz)
Power Consumption	1.18Watt (Typical), Receiving 4095 length packet, TFC1, Band Group 3, 480 Mbps.
Supported Models	C24A650X, C27A650X, C24A650U, C27A650U, C23A750X, C27A750X
Dimension	7 mm x 19 mm x 24.5 mm

Contact SAMSUNG WORLDWIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

EUROPE		
ALBANIA	42 27 5755	-
AUSTRIA	0810 - SAMSUNG (7267864,€ 0.07/min)	http://www.samsung.com
BELGIUM	02-201-24-18	http://www.samsung.com/be (Dutch) http://www.samsung.com/be_fr (French)
BOSNIA	05 133 1999	-
BULGARIA	07001 33 11	http://www.samsung.com
CROATIA	062 SAMSUNG (062 726 7864)	http://www.samsung.com
CZECH	800-SAMSUNG (800-726786)	http://www.samsung.com
	Samsung Zrt., česká organizační složka, Oasis Florenc, Sokolovská394/17, 180 00, Praha 8	
DENMARK	70 70 19 70	http://www.samsung.com
FINLAND	030 - 6227 515	http://www.samsung.com
FRANCE	01 48 63 00 00	http://www.samsung.com
GERMANY	01805 - SAMSUNG (726-7864,€ 0,14/Min)	http://www.samsung.com
GREECE	2106293100	http://www.samsung.com
HUNGARY	06-80-SAMSUNG (726-7864)	http://www.samsung.com
ITALIA	800-SAMSUNG (726-7864)	http://www.samsung.com
KOSOVO	+381 0113216899	-
LUXEMBURG	261 03 710	http://www.samsung.com
MACEDONIA	023 207 777	-
MONTENEGRO	020 405 888	-
NETHERLANDS	0900 - SAMSUNG (0900-7267864) (€ 0,10/Min)	http://www.samsung.com
NORWAY	815-56 480	http://www.samsung.com
POLAND	0 801 1SAMSUNG (172678) 022 - 607 - 93 - 33	http://www.samsung.com

EUROPE		
PORTUGAL	80820-SAMSUNG (726-7864)	http://www.samsung.com
RUMANIA	08010 SAMSUNG (08010 7267864) – doar din rețeaua Romtelecom, tarif local; 021.206.01.10 – din orice rețea, tarif normal	http://www.samsung.com
SERBIA	0700 Samsung (0700 726 7864)	http://www.samsung.com
SLOVAKIA	0800 - SAMSUNG (0800-726 786)	http://www.samsung.com/sk
SPAIN	902 - 1 - SAMSUNG (902 172 678)	http://www.samsung.com
SWEDEN	0771 726 7864 (SAMSUNG)	http://www.samsung.com
SWITZERLAND	0848-SAMSUNG (7267864, CHF 0.08/min)	http://www.samsung.com/ch http://www.samsung.com/ch_fr (French)
U.K	0330 SAMSUNG (7267864)	http://www.samsung.com
EIRE	0818 717100	http://www.samsung.com
LITHUANIA	8-800-77777	http://www.samsung.com
LATVIA	8000-7267	http://www.samsung.com
ESTONIA	800-7267	http://www.samsung.com

CIS		
RUSSIA	8-800-555-55-55	http://www.samsung.com
GEORGIA	8-800-555-555	-
ARMENIA	0-800-05-555	-
AZERBAIJAN	088-55-55-555	-
KAZAKHSTAN	8-10-800-500-55-500 (GSM: 7799)	http://www.samsung.com
UZBEKISTAN	8-10-800-500-55-500	http://www.samsung.com
KYRGYZSTAN	00-800-500-55-500	http://www.samsung.com
TADJIKISTAN	8-10-800-500-55-500	http://www.samsung.com
UKRAINE	0-800-502-000	http://www.samsung.com/ua http://www.samsung.com/ua_ru
BELARUS	810-800-500-55-500	-
MOLDOVA	00-800-500-55-500	-

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Terminology

OSD(On Screen Display)

On screen display (OSD) allows you to configure on-screen settings to optimize the picture quality as required. It allows you to change the screen brightness, tint, size and many other settings using menus displayed on the screen.

HUB

HUB refers to a device that is a common connection point for multiple devices connected over a network. It is used to connect multiple PCs, video devices, office devices and/or LANs over a single network.

Dongle

Dongle refers to a device that connects to an input/output port on a PC. It contains a security key or ID so that only the user that connects the dongle can access a specified application. The dongle on this product contains data required to use Wireless USB and must be connected to your PC.

Coarse

Coarse refers to the frequency of radio wave vibrations per second. A higher frequency transmits a larger amount of data and is reflected easier. A lower frequency traverses obstacles more easily and can travel farther, but it transmits a smaller amount of data. The Coarse menu allows you to manually adjust the frequency to obtain the optimum picture quality. Adjust Coarse referring to Standard Signal Mode Table (page89) according to the performance of your product and enjoy improved picture quality.

Gamma

The Gamma menu adjusts the grey scale that represents middle tones on the screen. Adjusting the brightness brightens the whole screen, but adjusting Gamma only brightens the medium brightness.

Grey scale

Scale refers to levels of color intensity that show variations of color change from darker areas to brighter areas on the screen. Changes to the screen brightness are expressed with black and white variation, and grey scale refers to the medium area between black and white. Changing the grey scale through Gamma adjustment will change the medium brightness on the screen.

Scanning rate

Scanning rate, or refresh rate, refers to the frequency of screen refreshes. Screen data is transmitted as it refreshes to display an image, although the refreshing is invisible to the naked eye. The number of screen refreshes is called scanning rate and is measured in Hz. A scanning rate of 60Hz means that

the screen refreshes 60 times per second. The screen scanning rate depends on the performance of the graphics cards in your PC and monitor.

Horizontal Frequency

Characters or images displayed on the monitor screen consist of numerous dots (pixels). Pixels are transmitted in horizontal lines, which are then arranged vertically to create an image. The horizontal frequency is measured in kHz and represents how many times horizontal lines per second are transmitted and displayed on the monitor screen. A horizontal frequency of 85 means that the horizontal lines that make up an image are transmitted 85 000 times per second, and the horizontal frequency is indicated in 85kHz.

Vertical Frequency

One image is made of numerous horizontal lines. The vertical frequency is measured in Hz and represents how many images can be created per second by those horizontal lines. A vertical frequency of 60 means that an image is transmitted 60 times per second. The vertical frequency is also called "refresh rate" and affects screen flicker.

Resolution

Resolution is the number of horizontal pixels and vertical pixels that form a screen. It represents the level of display detail.

A higher resolution displays a greater amount of information on the screen and is suitable for performing multiple tasks at the same time.

E.g. A resolution of 1920 x 1080 consists of 1,920 horizontal pixels (horizontal frequency) and 1,080 vertical lines (vertical resolution).

Plug & Play

The Plug & Play feature allows the automatic exchange of information between a monitor and PC to produce an optimum display environment.

The monitor uses VESA DDC (international standard) to execute Plug & Play.

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